KANSAS HIGHWAY COMMISSION

FIRST BIENNIAL REPORT

OF THE

KANSAS
HIGHWAY COMMISSION

April 4, 1917, to January 1, 1919.

KANSAS STATE PRINTING PLANT
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Kansas Highway Commission

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To the Honorable, the Legislature of the State of Kansas:

In compliance with section 6, chapter 264, of the Laws of 1917, we have the honor to submit herewith the First Biennial Report of the State Highway Commission.

ARTHUR CAPPER,
E. R. MOSES,
R. S. TIERNAN,
Commissioners.

DECEMBER 31, 1918

KANSAS HIGHWAY COMMISSION.

Organization December 31, 1918.

ARTHUR CAPPER, *Governor*	Chairman *ex officio*.
E. R. MOSES, Great Bend	Commissioner.
R. S. TIERNAN, Fort Scott	Commissioner.
W. C. MARKHAM	Secretary.
W. S. GEARHART (absent on leave)	State Highway Engineer.
M. W. WATSON	Acting State Highway Engineer.
C. I. FELPS (absent on leave)	Bridge Engineer.
F. W. EPPS	Acting Bridge Engineer.
H. S. MCFADDEN	Assistant Engineer.
H. A. MARSHALL	Assistant Engineer.
O. J. EIDMANN	Assistant Engineer.
R. H. PENNARTZ	Assistant Engineer.
JOHN D. SEYMOUR	Assistant Engineer.
BESSIE M. HERRING	Clerk to State Highway Engineer.
LILLIAN M. OLSEN	Clerk to the Secretary.
HESTER COOK	Stenographer.
LOIS T. WOOLLEY	Draftsman.

COUNTY ENGINEERS.

County.	*Engineer.*	*Residence.*
Allen	C. E. Stebbins	Iola.
Anderson	Elmo F. Miltner	Garnett.
Atchison	R. D. Coleman	Atchison.
Barber	———	———
Barton	W. J. Armstrong	Great Bend.
Bourbon	R. W. Toles	Fort Scott.
Brown	S. K. McCrary	Hiawatha.
Butler	John H. Austin	El Dorado.
Chase	E. J. Cook	Cottonwood Falls.
Chautauqua	C. F. Osborne	Howard.
Cherokee	C. M. Cooper	Columbus.
Cheyenne	R. M. Jaqua	St. Francis.
Clark	O. T. Reece	Ashland.
Clay	E. L. Bell	Clay Center.
Cloud	Harry M. Noel	Concordia.
Coffey	C. M. Morrow	Burlington.
Comanche	O. T. Reece	Ashland.
Cowley	J. M. Bradley	Winfield.
Crawford	W. J. Arnold	Girard.
Decatur	I. K. Huber	Oberlin.
Dickinson	Karl Riddle	Abilene.
Doniphan	F. C. Dwiggins	Troy.
Douglas	Lloyd Duffee	Lawrence.
Edwards	E. B. Johnson	Kinsley.
Elk	C. F. Osborne	Howard.
Ellsworth	L. E. Bossing	Ellsworth.
Ellis	Willard C. Holmes	Hays.
Finney	P. J. Ruckel	Garden City.
Ford	T. J. Schall	Dodge City.
Franklin	M. E. Alderman	Ottawa.
Geary	Blair Boyle	Junction City.
Gove	———	———
Graham	———	———
Grant	E. H. Fisher	Elkhart.
Gray	W. Barton	Ingalls.
Greeley	Frank Petefish	Scott City.
Greenwood	F. E. Ross	Eureka.
Hamilton	R. B. Glass	Lakin.
Harper	C. C. Eastham	Anthony.
Harvey	Adolph Hay	Newton.
Haskell	P. J. Ruckel	Garden City.
Hodgeman	O. A. Neeley	Jetmore.
Jackson	P. W. Wright	Holton.
Jefferson	Emery E. Clark	Oskaloosa.
Jewell	H. M. Fearing	Burr Oak.
Johnson	C. G. Payne	Olathe.
Kearny	R. B. Glass	Lakin.
Kingman	C. C. Martin	Kingman.
Kiowa	———	———

County.	*Engineer.*	*Residence.*
Labette	W. J. King	Oswego.
Lane	C. G. Waterson	Pendennis.
Leavenworth	L. C. Clark	Leavenworth.
Lincoln	Anton J. Wandt	Lincoln.
Linn	James M. Mundell	Mound City.
Logan	Ben L. Allen	Russell Springs.
Lyon	W. S. Ruggles	Emporia.
McPherson	H. A. Rowland	McPherson.
Marion	Ed F. Loveless	Marion.
Marshall	R. F. Gallup	Marysville.
Meade	Moses Black	Meade.
Miami	Herbert Stockwell	Paola.
Mitchell	Frank A. Slack	Beloit.
Montgomery	H. K. Hibbard	Cherryvale.
Morris	James McKenzie	Council Grove.
Morton	E. H. Fisher	Elkhart.
Nemaha	L. P. Price	Seneca.
Neosho	Felix Itz	Erie.
Ness	L. L. Hunt	Ness City.
Norton	John C. Newell	Norton.
Osage	C. C. Jones	Burlingame.
Osborne	H. L. Parker	Osborne.
Ottawa	———	———
Pawnee	Benton Steele	Larned.
Phillips	Glenn I. Voyles	Phillipsburg.
Pratt	Gwynn W. Ellis	Pratt.
Pottawatomie	———	———
Rawlins	H. H. Obert	Atwood.
Reno	W. B. Harris	Hutchinson.
Republic	E. A. D. Parker	Belleville.
Rice	Sam Ainsworth	Lyons.
Riley	O. E. Noble	Manhattan.
Rooks	Carl F. Cooper	Stockton.
Rush	D. B. Kleihege	La Crosse.
Russell	A. J. Francis, Jr.	Russell.
Saline	Wm H. Cost	Salina.
Scott	Frank Petefish	Scott City.
Sedgwick	M. Roseberry	Wichita.
Seward	J. G. Trindle	Liberal.
Shawnee	John E. Williams	Topeka.
Sheridan	T. B. Clark	Hoxie.
Sherman	———	———
Smith	Fred V. Voyles	Smith Center.
Stafford	James Starke	St. John.
Stanton	E. H. Fisher	Elkhart.
Stevens	W. S. Bayles	Hugoton.
Sumner	J. W. Mavity	Wellington.
Thomas	T. B. Clark	Hoxie.
Trego	Hudson Harlan	Wa Keeney.
Wabaunsee	C. C. Jones	Burlingame.
Wallace	———	———
Washington	Wm S. Henderson	Washington.
Wichita	Frank Petefish	Scott City.
Wilson	Chas. P. Donald	Fredonia.
Woodson	H. O. Ashley	Yates Center.
Wyandotte	Ora K. Williamson	Kansas City.

PART I.

INTRODUCTION.

IN PRESENTING this, the first biennial report of the State Highway Commission, it is deemed proper to give a short résumé of road and bridge building and legislation pertaining thereto up to the time a State Highway Commission was established by legislative enactment.

By act of Congress in 1824, the Santa Fe Trail was established, entering Kansas at Kansas City, traversing the entire length of the state, and extending into Colorado through Hamilton county, near Fort Bent. As civilization advanced across the western country other trails were established, notably the Oregon, California, Salt Lake and Mormon trails. These were all originally Indian trails, and there was a network of minor trails leading into them.

In 1837 a military road was located from Fort Leavenworth, Kan., to Fort Coffey in western Arkansas. The road was 286 miles long, and Fort Scott, Kan., was about midway between Leavenworth and Coffey.

The legislature of 1855 passed an act making certain regulations concerning territorial roads, and a number of separate acts providing for the location of no less than fifty-six territorial roads.

In 1857 the legislature repealed a portion of the road laws of 1855 and provided that roads might be viewed, surveyed, established and returns made within two years from the passage of the several acts, and thirty-eight more territorial roads were laid out.

The first provision for a system of state-aid highways is found in the following paragraph of the constitution adopted at Lecompton, November 7, 1857:

"A liberal system of internal improvements being essential to the development of the resources of the county, shall be encouraged by the government of this state; and it shall be the duty of the legislature, as soon as practicable, to ascertain by law proper objects of improvement in relation to roads, canals and navigable streams, and to provide for a suit-

able application of such funds as may be appropriated for such improvements."

The advocates and opponents both claimed a majority on behalf of the ratification of this constitution at the elections held December 21, 1858, and on January 4, 1859. This draft of the constitution, however, did not prevail.

The state constitution adopted at Wyandotte on January 24, 1859, ratified by the people October 4, 1859, and which went into operation January 29, 1861, contains the following provision:

"The state shall never be a party to carrying on any works of internal improvements."

The act of Congress admitting Kansas into the Union, January 29, 1861, contains the following provision:

"That five per centum of all sales of all public lands lying within the said state which shall be sold by Congress after the admission of said state into the Union, after deducting all the expenses incident to the same, shall be paid to the said state for the purpose of making public roads and internal improvements or for other purposes as the legislature shall direct."

It will be noted that the Federal Government recognized that public highway improvement, very properly, is a state function, and to that end gave the state legislature authority to appropriate for that purpose 5 percent of all sales of all public lands in the state, less the expenses incident to selling the same.

The framers of the constitution, however, inserted the above inhibition, which prevents the legislature from appropriating state funds for public roads and bridges until this provision of the constitution is amended.

It is nowhere evident that the framers of the constitution were opposed to road improvements from state funds, but just prior to the adoption of the Kansas constitution many of the older states had suffered most disastrously on the part of the state government by having embarked upon various undertakings, such as building canals, and even industrial projects. The sad effect of such undertakings was keenly alive in the minds of the framers of the Kansas constitution, and hence the section prohibiting internal improvements, and unfortunately this includes public highways.

The territorial legislature which met in Lecompton Janu-

ary 2, and adjourned at Lawrence January 18, 1860, enacted the first comprehensive general road law. It provided that county roads be laid out by the county commissioners sixty-six feet wide, on petition by twelve landowners, that viewers be appointed and the road surveyed and the county pay all damages for right of way. A provision was made for establishing township roads, which were the highways from the farm houses, plantations, mills and houses of public worship to any county road, or from one county road to its intersection with another. This act contained the first poll-tax provision in Kansas for raising funds to maintain highways.

The county commissioners were required to levy an annual road tax of not less than two mills and not more than five mills on the dollar on all lands in their respective counties subject to taxation, without including the improvements thereon. The landowners were given their option of paying the road tax in cash or working it out under the direction of the overseer in the district where the land was located.

Up to 1875 there had been established about 340 state roads, but at the present time only in rare instances are any of the original territorial or state roads left except such as followed section lines.

From 1875 to 1900 few state roads were established and little important change was made in the laws or system of management, except that the township was made the unit instead of the county. This is now considered by many authorities to have been a step backward. Practically no road progress was made during these twenty-five years. In fact, it was a period of highway backsliding.

Edwards county obtained a special act of the legislature in 1892, and built the first sand-clay roads in the state. Between 1900 and 1907, Atchison, Allen, Bourbon, Neosho, Wyandotte and several other counties obtained special macadam-road laws, which enabled them to form road-taxing districts, and as a result of these special acts the counties named have built more miles of improved road than any others in the state up to 1912.

The Hodges rock-road law, enacted in 1909, has been the means of building not less than one hundred miles of improved highways. At this same time the legislature abolished the old

system of working out the road tax and made it payable in cash.

In 1911 the state legislature made much progress by passing a road law which began to view the road work of the commonwealth from the statewide viewpoint. The state engineer, connected with the Extension Department of the State Agricultural College, was authorized to give advice and assist the several counties of the state in their road and bridge work without expense to the counties.

In 1913 another advance step was taken by the passage of laws providing for compulsory road dragging. Motor-vehicle license fees were placed in a special county road fund for the maintenance of highways designated as county and state roads, and this fund was prohibited from being used for any other purpose.

In 1915 the legislature passed a law whereby highways may be given a name and be properly marked. It also empowered the county commissioners to remove obstructions at railroad grade crossings.

From 1909 to 1917 much valuable assistance was given the various counties in their road and bridge construction by the Extension Department of the State Agricultural College, tabulations of which may be found in the various publications of that institution.

ORGANIZATION OF STATE HIGHWAY COMMISSION.

By authority of chapter 264 of the Laws of 1917, passed and approved February 28, 1917, and officially published March 7, 1917, the State Highway Commission was created to consist of three members as follows: The Governor, who shall be *ex officio* chairman, and two members to be appointed by him. The two members to be appointed by the Governor shall be appointed for two and four years, respectively, and thereafter to be appointed for a period of four years, one of whom shall reside east of the sixth principal meridian and the other west thereof; provided, further, that no person shall be eligible for appointment on the Commission herein provided for who holds any elective or appointive public office.

Following the instructions of the law, Governor Arthur Capper, chairman *ex officio*, appointed E. R. Moses, of Great

Bend, to serve as commissioner for a period of two years and R. S. Tiernan, of Fort Scott, to serve as commissioner for four years.

The Commission met at Topeka, April 4, 1917, in the Governor's office and took the prescribed oath.

In further pursuance of the highway law the Commission completed the organization by the election of R. S. Tiernan as vice chairman of the Commission, W. C. Markham as secretary of the Commission and W. S. Gearhart as state highway engineer. Additional engineers, draftsmen, clerks and stenographers have been appointed by the Commission from time to time as the occasion warranted.

GENERAL HIGHWAY LAW.

The legislature of 1917 passed more remedial laws for the benefit of roads and bridges in Kansas than all the legislatures of Kansas combined. In the passage of the general highway law, being chapter 264 of the Laws of 1917, the state accepted the offer of Federal aid as passed by Congress July 11, 1916.

A State Highway Commission was established, whose general powers and duties are: To apportion the Federal aid to the various counties; approve the appointment of all county engineers with power of removal for incompetency; approve all bridge plans costing over $2,000; approve the formation of county engineer districts; approve the vouchers for maintenance of Federal aid roads; assist county engineers and attorney-general in patent suits, coöperate with the Secretary of Agriculture in carrying out the provisions of the Federal aid act; compile information of road, bridge and culvert materials; issue pamphlets, bulletins, a biennial report, and other educational matter concerning road and bridge work; coöperate with state and national organizations, designate county road system where counties fail to do so; determine *pro rata* cost of eliminating railroad grade crossings; devise and adopt standard specifications for road, bridge and culvert construction, furnishing same to the county engineers; empowered to order in safety devices at railroad crossings; empowered to order reconstruction of destroyed bridges; establish an accounting system for the various counties and townships; furnish all

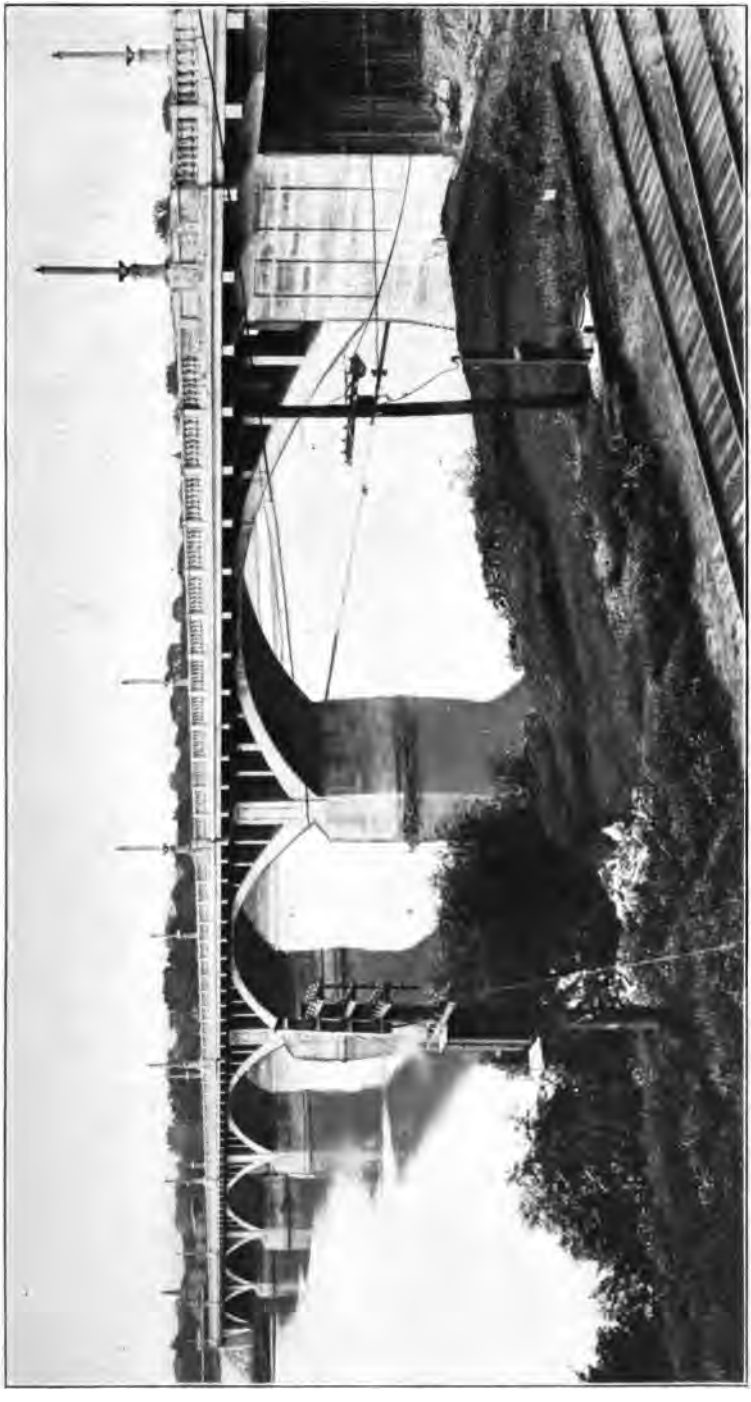
forms and blanks for county reports; furnish to Secretary of Agriculture project statements, surveys and plans; inspect all government aid roads; empowered to secure information concerning roads and bridges from county commissioners, county clerks, county engineers and township boards; must approve forms for bridge contracting and also approve private letting of bridge contracting; empowered to enforce all highway laws, report violations of highway laws to attorney-general, and settle disputes on county-line bridges; furnish the various counties with specifications for bridges, culverts, overhead crossings and subways.

SYSTEM OF STATE ROADS.

Kansas has over 111,000 miles of roads, and next to Texas has the largest mileage of any state in the Union. Realizing that it was in the mind of the legislature that the various counties should adopt a system of county roads whereby the interests of the entire state were conserved and the leading market centers joined, the Commission held hearings at their office in Topeka for a week beginning May 9, 1917, and received delegations from various counties at their regular monthly meetings for several months following.

A system of state roads was eventually adopted, covering about 6,000 miles. This system connects 85 percent of the population of the state and 92 percent of the taxable property. A map showing this system of roads may be seen in this volume. This system of roads also connects with the Missouri state system at St. Joseph, Atchison, Leavenworth, Kansas City, Fort Scott and Galena; with Oklahoma south of Baxter Springs, Chetopa, Coffeyville, Caney, Arkansas City, Caldwell, Manchester, Coldwater, Liberal and Elkhart; with Colorado at Coolidge, west of Tribune, Sharon Springs and Goodland; with Nebraska north of Atwood, Belleville, Marysville and Hiawatha.

PLATE I.



BRIDGE ACROSS THE KANSAS RIVER AT LAWRENCE.
Erected by the citizens of Douglas county, at a cost of $225,000.

GRANTING OF FEDERAL AID.

In compliance with the provisions of the Federal aid road act, and the rules and regulations adopted by the Secretary of Agriculture requiring that the State Highway Commission designate a system of roads to be improved with Federal aid during the five-year period for which Federal appropriations have been made, the Commission selected about 3,270 miles of cross-state highways.

The Commission decided to allow Federal aid on these roads whenever an application is approved, to the amount of fifteen percent of the cost of substantially improving the same in compliance with the Federal aid road act.

The Federal aid roads selected and the policy of handling the work decided upon by the State Highway Commission has been approved by the Secretary of Agriculture.

The following amounts of Federal aid will be available for the construction of substantial roads in Kansas:

For the year ending—		
June 30, 1917	$143,207.40,	available until June 30, 1920.
June 30, 1918	286,414.80,	available until June 30, 1920.
June 30, 1919	429,622.20,	available until June 30, 1921.
June 30, 1920	572,829.60,	available until June 30, 1922.
June 30, 1921	716,037.00,	available until June 30, 1923.
Total amount available	$2,148,111.00,	during five-year period.

The following trails or marked highways have been designated as the first roads to receive consideration for Federal aid: Jefferson Highway or connecting routes, King of Trails or connecting routes, Meridian Road, Rock Island Highway, Midland Trail or connecting routes, the Old Santa Fe Trail, the Ozark Trail, the New Santa Fe Trail, the Fort Scott-Wichita-Dodge City route, part of Capitol Highway, and White Way. Should these roads not make application for all the Federal aid funds in the time allotted, other roads may secure the same.

In order to assist the counties in their requests for Federal aid the Commission adopted and had published the following explanation of the methods of procedure:

Any county containing a part of the Federal aid road system, desiring to take advantage of this Federal coöperation,

should file its application for aid with the Commission on or before January 20 of the year in which the proposed improvement is to be made.

Applications for Federal aid will not be considered as formally filed until the county board has approved the road petition or petitions and declared the improvement to be of public utility. In case the proposed improvement is to be financed in the county by direct levies or by issuing bonds under the provisions of chapter 264 and 265 of the Session Laws of 1917, the county's *pro rata* of the cost must be definitely provided before applications for aid will be considered.

Any county containing a part of the Federal aid road system desiring to take advantage of the Federal aid should first confer with the Commission concerning the details of the procedure. This should be done before deciding upon the materials to be used, or the road benefit district petition or the election petition is circulated and signed. A strict adherence to this procedure will avoid much confusion, disappointment and delay.

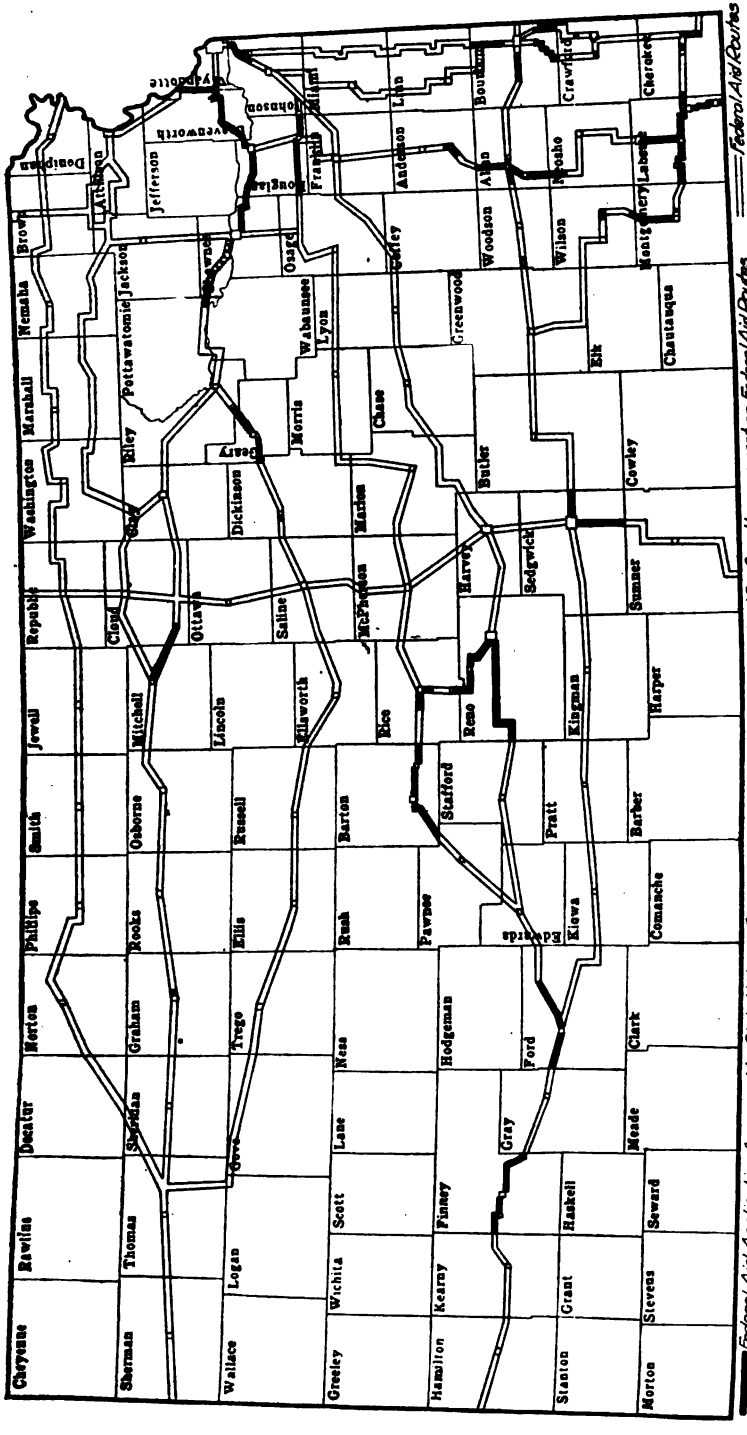
If the State Highway Commission deems the proposed project feasible, it will direct the state highway engineer to inspect the road and advise with the county board concerning its improvement and furnish the board a written report.

The road petition should not be prepared and signed until after the state highway engineer has inspected the proposed road and furnished the board a written report.

After the petition is signed and the county board has ordered and declared the improvements to be of public utility, the county board must enter into contract with the State Highway Commission agreeing that the construction work and labor on said improvement shall be done under the direct supervision of the State Highway Commission, as required in the federal act, subject to the inspection and approval of the Secretary of Agriculture and in accordance with the provisions of the Federal aid road act and the rules and regulations adopted by the Secretary.

The State Highway Commission will then prepare a project statement for the proposed improvement and submit it to the Secretary of Agriculture for his approval.

If the project is approved by the Secretary, the surveys must be made and the plans, specifications and estimates for



FEDERAL AID GRANTED BY THE STATE HIGHWAY COMMISSION TO JANUARY 1, 1919.

Total mileage, 335; federal aid, $1,592,530.17; approximate construction cost, $10,140,925.69.

the improvements prepared by a competent engineer under the direction of the State Highway Commission. The cost of such surveys, plans, specifications and estimates must be paid by the county, but may be charged against the improvement when the assessments are made. No part of the expense of making surveys, plans, specifications or estimates incurred prior to the beginning of the construction work can be paid by the Federal government.

The plans, specifications and estimates must be approved by the state highway engineer and then submitted by the Commission to the Secretary of Agriculture for his approval.

Contracts will be made in the name of the county with the approval of the State Highway Commission. The work may be done by day labor, if it has been shown to the satisfaction of the secretary that adequate means, either by advertising or other devices appropriate for the purpose, were employed prior to the beginning of construction, to insure the economical and practical carrying out of the work.

Section 5 of regulation 8 of the rules and regulations adopted by the Secretary of Agriculture provides as follows: "The supervision of each project by the state highway department shall include adequate inspection throughout the course of construction." On account of the small appropriation for the State Highway Commission the cost of this inspection and of any resident engineers required on the work will have to be paid by the county and made a charge against the improvement. The cost of the engineering supervision given the work by the regular force of the State Highway Commission will be paid by the state. No part of the Federal government's engineering and inspection can be charged against the county or the improvement.

The Secretary of Agriculture and the State Highway Commission may jointly determine at what times and in what amounts payments, as the work progresses, shall be made. Claims due from the Federal government must be submitted by the State Highway Commission to the Secretary of Agriculture, and payments will then be made by the Secretary of the Treasury, upon warrants drawn by the Secretary of Agriculture to the county treasurer.

Of the total amount of Federal aid granted to Kansas ($2,148,111) $1,592,530.17 has already been set aside by the Commission upon petition from various counties.

COMPILATION OF HIGHWAY LAWS.

The state never at any time having made a full and complete compilation of the laws affecting roads and bridges, the Commission has had these laws compiled and published in one volume of 175 pages, so they can be of easy access to those who may need them. The compilation includes: The general highway law of 1917; the road law of 1917, providing for the improvement of county roads on the benefit district plan; the general road law of 1911, parts of which still remain in force; the 1917 law relating to bridges, culverts, and subways; the laws concerning liability to holders of bridge patents; the naming and marking of highways; the motor vehicle laws; and all the miscellaneous laws affecting roads, bridges and public work.

With the publication of the laws the Commission also published, in connection with the several paragraphs of the new laws, legal interpretations from the attorney-general.

The Federal aid act, and the rules governing the enforcement thereof as promulgated by the Secretary of Agriculture, were also added to the volume.

Copies of these laws were mailed to all the county officials delegated to enforce them and to all others who have made requests for the same.

"KANSAS HIGHWAYS."

Beginning with October, 1917, the Commission has been publishing quarterly a highway magazine. The purpose has been to give to the people of the state much needed information and news concerning road and bridge construction in the state that would not reach them by any other avenue.

Articles have been presented concerning construction work, as well as general information which all the taxpayers of the state should know. Illustrations showing various types of road and bridge work, as well as etchings showing the various road petitions granted federal aid, a complete list of the railroad grade crossings ordered eliminated, and news items of vital interest to the various counties, have all received prominent consideration.

The Commission has distributed 7,500 copies of each edition, and has not been able to meet the demand.

PUBLIC MEETINGS.

In addition to the numerous responses for visitation to the various counties of the state, the Commission has been represented at the annual meeting of the American Association of Highway Officials at Richmond, Va., in 1917, and Chicago, Ill., in 1918. Also, the Commission was represented at the annual meeting of the National Old Trails Association, in Pueblo in 1917 and in Kansas City in 1918. Addresses have likewise been made at road meetings in Fort Scott, Parsons, Olathe, Dodge City, Wichita, Overbrook, Allen, Lakin, Wellington, Lawrence, Hoxie, Manhattan, Hiawatha, Iola, Hanover, Liberal, Concordia, Salina, Burlington, Pleasanton, Louisburg, Stanley, Stilwell, Kansas City, Kan., Fairview, Coldwater, Greensburg, Norton, Tribune, Ellinwood and Great Bend. Addresses were delivered at public meetings at the state fairs in Topeka and Hutchinson in 1917 and in Topeka in 1918.

The Commission furnished a full day's program at the annual meeting of the State Association of County Commissioners in Topeka in 1917, and also appeared on their program in the same city in 1918.

Representatives of the Commission have also assisted at public meetings in various communities by helping the people plan the formation of Federal aid districts.

MOTOR TRUCK TRANSPORTATION.

At the request of the Council of National Defense, the Commission has had under supervision the organization of the state to assist motor truck transportation to relieve the railroad congestion. This method of a public system of transportation is so closely allied with the road and bridge situation that the Commission felt this work should be assumed by them despite the fact that the legislature had made no special provision for war emergencies since its last session had adjourned before war was declared.

The plan of the Council of National Defense is to divide each state into five districts, and the five members of the state committee are the chairmen of these several districts.

In effecting an organization for Kansas, the following com-

mittee was appointed to have charge of the various districts as given below:

W. C. Markham, secretary Kansas Highway Commission, chairman.

H. S. Putney, Topeka, chairman district No. 1, composed of the following counties: Doniphan, Brown, Nemaha, Atchison, Jackson, Pottawatomie, Jefferson, Leavenworth, Wyandotte, Shawnee, Wabaunsee, Morris, Osage, Douglas, Johnson, Miami, Franklin, Coffey, Lyon and Chase.

W. F. Allen, Chanute, chairman district No. 2, composed of the following counties: Anderson, Linn, Bourbon, Allen, Woodson, Greenwood, Elk, Wilson, Neosho, Crawford, Cherokee, Labette, Montgomery and Chautauqua.

John B. House, Wichita, chairman district No. 3, composed of the following counties: Rice, Barton, Butler, Harvey, Reno, Stafford, Pawnee, Hodgeman, Finney, Kearny, Hamilton, Sedgwick, Kingman, Pratt, Edwards, Kiowa, Ford, Gray, Haskell, Grant, Stanton, Cowley, Sumner, Harper, Barber, Comanche, Clark, Meade, Seward, Stevens and Morton.

J. F. Ollinger, Salina, chairman district No. 4, composed of the following counties: Riley, Geary, Dickinson, Ottawa, Russell, Ellis, Trego, Gove, Logan, Wallace, Greeley, Wichita, Scott, Marion, Lane, Ness and Rush.

William Lutt, Concordia, chairman district No. 5, composed of the following counties: Marshall, Washington, Clay, Republic, Cloud, Jewell, Mitchell, Smith, Osborne, Phillips, Rooks, Norton, Graham, Decatur, Sheridan, Rawlins, Thomas, Cheyenne and Sherman.

While Kansas is not so congested in population as many of the eastern states, still it is thought that much good can be accomplished by a thorough organization of this character in the state. The state committee has taken a census of all the trucks now being used in the state. The census includes the name of the party operating the motor, the schedule, the character of produce hauled, the return load, the rate charged, and the tonnage carried. Already in a good many communities individuals have taken up this matter of motor-truck service, but the greatest problem seems to be the working out of a method whereby they are assured of a return load.

The United States Railroad Administration is strongly urging the formation of this method of transportation. One

of the chief problems of to-day seems to be to increase the use of highways as much as possible in order to relieve the burden and strain upon the railroad and water transportation.

The Department of Labor at Washington is also much interested in the problem because of the desire to aid the farmer in getting his produce to market without being compelled to leave his work and each day take a certain amount of time to deliver his produce.

Several of the states which have advanced further in their work of organization than Kansas have adopted a plan of price of rates by taking the former express rate and freight rate and suggesting to the motor men to make a charge of the average of these two rates.

There are quite a number of communities in Kansas where systematic deliveries of merchandise from the wholesaler to the retailer can be accomplished much more expeditiously than by the use of a railroad. Return-load bureaus are located at some convenient point in the city, and in that way there has been no difficulty in securing for the truck men plenty of return service.

RECOMMENDATIONS TO STATE LEGISLATURE.

In reporting to your honorable body concerning the work and operations of the Highway Commission, we wish to state that the plan of organization of the Commission as developed by the last legislature has proved to be a very satisfactory one. We have operated under very unusual conditions. Nothing was normal. The personnel of our engineering office force has been constantly changing because of draft calls, and financial opportunities opening up which we were not able to meet.

Heretofore no effort has ever been made to approach the road-building proposition from a state-wide viewpoint. Everything has been local, without any regard to the situation in the adjoining counties. But the war gave us a national and international viewpoint, and local jealousies under this impulse were readily dissipated. We are now entering upon an era of peace, with the national mind comprehending stupendous tasks, and our people are readily grasping and favoring nation-wide construction of roads as easily as formerly they viewed the work in the remotest township.

Having made a close study of the operations of the present state laws governing road and bridge construction, the Commission is convinced that in general the laws are very wholesome, effective and beneficial. There are changes, however, that should be made. Transportation conditions and facilities make some of the laws inadequate and also suggest new laws to govern new conditions. Some changes should be made because of an inequality of responsibility, some because of an injustice to certain classes of people, and some because present conditions make them inoperative.

1. STATE AID. The use of state funds in the construction of roads is recognized in all parts of the country as one of the necessary assets to the obtaining of a connected system of state highways. Kansas is unfortunate in being prohibited from the use of any state funds for road-construction purposes, due to a provision in the constitution which prohibits the state from engaging in public work. There are only four states in the Union which have constitutions prohibiting the state from constructing or assisting the counties in the construction of highways. These states are Georgia, North Carolina, Florida and Kansas. We recommend that an amendment to the state constitution be submitted to a vote of the people at the next general election permitting the use of state funds for the construction of public highways.

2. LIMITING THE CAPACITY OF MOTOR TRUCKS. The rapid increase in motor-truck hauling has brought about a condition which can only be handled by highway officials by reverting to legislation limiting the weight that can be carried on different widths of tires. It will be practically impossible for any highway engineer to design a pavement which will meet the future traffic if we allow the motor trucks to be continuously increased in capacity and speed without regulation. There is a general movement on foot throughout the country to pass uniform legislaiton in regard to the size and speed of motor trucks, and we would recommend that the legislature seriously consider some limitations for this state.

3. COUNTY ENGINEERS' SALARIES. The present law limiting the salary of county engineer, based on the population of the county, does not give satisfactory results in all cases. Some counties of smaller population have considerable more work than other counties of larger population. If a county decides

to construct hard-surfaced road work amounting to several million dollars there should unquestionably be a man in charge of the county engineer's office who is qualified to handle the work, and in order to get such a man the salary must be commensurate with that paid to men of equal qualifications in other lines of work. The present salaries of county engineers in Kansas do not compare favorably with the salaries in other states. We would, therefore, recommend that section 12, chapter 264, Laws of 1917, be amended so that the salary of the county engineer, as stated, would be the minimum; and that from time to time, when found necessary, the board of county commissioners could increase the pay of the county engineer in order to secure the proper man. To prevent excessive salaries in some cases we would recommend that when any board of county commissioners decides to increase the pay of the county engineer above that which is fixed as the minimum, they shall first submit the proposition to the State Highway Commission for its approval.

4. ROAD MATERIAL SURVEY. Section 6, chapter 264, requires the State Highway Commission to compile information concerning road, bridge and culvert materials of the state, and to furnish such information to all boards of county commissioners and other road officials. The appropriations of the State Highway Commission for the past two years have been entirely inadequate to make a thorough investigation of these materials. We feel that we could be materially assisted in obtaining this information by a well-organized state geological survey, one of the purposes of which survey would be investigating road and bridge materials, and we would indorse the establishment of such survey, with instructions that they cooperate with and furnish the State Highway Commission information in regard to road materials.

5. RAILROAD GRADE CROSSINGS.

(*a*) The requirements of chapter 264, Laws of 1917, in regard to the elimination of railroad grade crossings provide for the relocation of the highway when crossings are ordered so eliminated by the State Highway Commission. The compliance with this provision is badly handicapped through lack of a provision giving the board of county commissioners authority to open the road without reverting to the provisions of the gen-

eral road law of 1911. Under the present law it is necessary that there be a petition of twelve householders residing in the vicinity of the road to be laid out, and that the road be viewed and damages ascertained and passed upon by the board of county commissioners. In many instances the householders residing within the vicinity of the crossing do not realize the necessity of the relocation and will not sign such a petition, especially when they are required to file a bond. Therefore, we would recommend that section 18, chapter 264, be so amended that when the State Highway Commission orders any railroad grade crossing eliminated by paralleling along the railroad right of way, the order of the Commission would constitute authority to the board of county commissioners to lay out the new road and to purchase the necessary land therefor. In case the property owner refuses to sell at a reasonable rate, the board should then have authority to exercise the right of eminent domain without reverting to a petition of householders.

(*b*) Section 18, chapter 264, Laws of 1917, authorizes the State Highway Commission to require suitable safety devices or warning signals at dangerous railroad grade crossings. This provision is not complete, and it should be extended to allow the Commission to require the removal of spoil banks and other obstructions to view, to widen cuts, and to properly grade the approaches to the track. The Commission should be authorized, if the case so warrants, to require the county or township, as the case may be, to assist in the proper protection of the grade crossing.

(*c*) Section 8462, General Statutes of 1915, requires that the approach grade to a railroad grade crossing shall not be less than 16 feet in width and shall be on the same grade of the track for 10 feet on each side of the center of said track, and that the approach thereto shall not exceed 7½ percent. The width of 16 feet is not adequate, especially on high crossings where there is danger of overturning when two vehicles meet at the crossing. The level space of 10 feet does not give the driver sufficient room to put his car under control when he discovers the approach of a train. The grade of 7½ percent is in excess of the maximum allowable grades for motor haulage on highways. Therefore, we would recommend that this section be so amended that the width of fill shall be not less than 24 feet when the grade crossing is on a county road and not less

than 20 feet when the grade crossing is on a township road; that the highway shall be graded on the same grade as the track for a distance of 30 feet on each side of the center of the track, and that the approaches thereto shall not exceed 6 per cent; that when the highway crossing the track is to be improved by the construction of a hard-surfaced road, the railroad company should be required to pave the space between the rails and for a distance of 2 feet on each side thereof with a pavement of the same or better type for the full width of the pavement on the highway. On other crossings where the highway has not been improved, the planking or other material used between and for a distance of one foot outside the rails shall be of sufficient length to provide for a 16-foot roadway perpendicular to the axis of the highway.

(*d*) Several states have passed laws requiring the construction of warning signals at a distance of 300 feet either side of all railroad grade crossings. The establishment of these signals warns the driver of a motor car of the proximity to a crossing in sufficient time that he can have his car under control. The signs located at the track are often not observed until the driver is so close to the track that he cannot control his car. We would, therefore, recommend the passage of a law requiring the use of a standard signal which has been adopted in several other states, consisting of a circular metal disc with black border and black crossbars, and bearing in each of the top quadrants the letter "R." The expense of placing these signs should be borne by the county on county roads, and by the township on township roads, the railroad being required to maintain their signs at the crossing.

6. COUNTY ROAD UNIT. Section 25, chapter 264, allows the counties, by vote, to adopt a county road unit, but this section of the law is incomplete, inasmuch as it does not set forth the method of increasing the tax levy to care for the expense of constructing and maintaining the roads when the county unit is adopted. We would, therefore, recommend that this section be so amended that when any county has voted to work under the provisions of the county unit system, the board of county commissioners is authorized to increase both the road and bridge levy sufficient to handle the expense of this system. The maximum allowable levy for roads might be fixed at 2½ mills and for bridges 3 mills. It is imperative that some ac-

tion be taken on this question, as the county unit has already been voted and carried in one county.

7. REPORTS OF TOWNSHIP OFFICIALS. Section 45, chapter 264, Laws of 1917, requires the township road overseer to make an annual report to the township board on the last Saturday of December. Section 46, chapter 264, Laws of 1917, requires the township clerk to report to the county engineer not later than November 1. Section 11558, General Statutes of 1915, requires the township board to make an annual report to the county board before the first Monday in January, while section 11559, General Statutes of 1915, requires the township auditing board to settle with and audit the accounts of the township treasurer and overseer on the last Monday of October. There seems to be an overlapping and confusion in the dates of reports of township officials. Since the position of township road overseer may be filled by several different persons during the year, we do not believe that an annual report of the road overseer is of much value, and would, therefore, recommend that his report be monthly to the township board in place of annually. We would also recommend that the reports of the township clerk to the county engineer be made as follows: In townships where meetings of the board are held monthly, the township clerk should make a monthly report to the county engineer; in townships where the meetings of the board are held quarterly the township clerk shall make a quarterly report to the county engineer, all reports to be on the standard forms as prescribed by the State Highway Commission.

8. REPORT OF COUNTY ENGINEERS. Under the duties of the State Highway Commission we are required to make a biennial report to the legislature. The revised road law requires the county engineer to make a report to the board of county commissioners and file a copy with the State Highway Commission not later than November 15. Due to various causes, the county engineers' reports arrive in the office of the State Highway Commission much later than November 15, and by the time all the information is tabulated and ready to go to press for the biennial report the state printer is too crowded with work to get out the report in time to be submitted to the legislaure. If it is desired that this report be in the hands of the legislature previous to the session it will be necessary that

some change be made in the date of the county engineer's report, as the information furnished by the State Highway Commission depends largely on the reports of the county engineers.

9. ROAD CONSTRUCTION THROUGH CITIES OF THE THIRD CLASS. Under the present law cities of the third class are required to participate in the township tax for road benefit district improvement. Cities of the first and second class are not required to pay any part of the township tax. Owing to the size and usual wealth of a city of the third class, it will be a serious handicap in getting a through, connected system of road unless some means are provided whereby the pavement can be extended through these cities and allowing the county to assist in the construction of the same.

We would not consider it advisable for the benefit district to be extended into the city, as this would require the signature of so many property owners of small tracts of land that it would almost prevent a petition ever receiving the proper number of signatures, but a provision should be made whereby in the event that a benefit district road is constructed to the city limits of a city of the third class the city officials shall apply to the board of county commissioners for assistance in a continuation of said improvement through the city or from the end of the benefit district road to the center of the city. This provision should be so worded that the board of county commissioners shall then appropriate from the county funds, or issue bonds if necessary, to pay for 50 percent of the cost of the improvement and the city at large the remaining 50 percent: Provided, that the type and width shall be the same as constructed outside the city limits. If the city officials desire to use a different width or method of construction the additional cost of such width and methods shall be borne by the city. This will meet with the plan of the federal government, since federal aid is offered on roads through towns having a population of less than 2,500.

10. MAINTENANCE OF BENEFIT DISTRICT ROADS. Section 10, chapter 265, Laws of 1917, reads as follows: "All roads improved under the provisions of this act shall thereafter be maintained and kept in repair by the county in which said improved roads are located." This section is rather broad in its wording and liable to permit of too liberal an interpre-

tation by the board of county commissioners. It is essential and economy that whenever a piece of hard-surfaced road is constructed it should be carefully maintained from the time of its being opened to traffic, and unless some more stringent laws are passed there will be a tendency on the part of some boards to neglect the maintenance of these roads, which will produce very unsatisfactory conditions. We would recommend that this section be amended to agree with the provisions of section 3, chapter 264, in regard to Federal aid road work, with the exception that the county engineer should inspect the roads and certify to the board and the amount that is to be levied for the maintenance of the road, and it would then become the duty of the board to make this levy in addition to all other levies fixed by law, and that the funds so collected should be kept in a separate fund not used for any other purpose than the maintenance of benefit district roads.

11. BRIDGE LEVY. Section 2, chapter 80, Laws of 1917, provides for the inspection of bridges by the county engineer, the preparation of an estimate and the levying of a bridge tax by the budget system, in addition to which it requires the board of county commissioners to levy a contingent fund to the extent of 20 percent of the original levy. This section of the law has caused considerable difficulty in some instances where unforeseen conditions have arisen after the levy was made. We would recommend that the budget be prepared as required at present in section 2, and that the levy be made from the budget, but that the board of county commissioners be empowered to expend the money after it is collected on the bridges covered by the budget, or on such other bridges as may be deemed necessary by the board. Since the board of county commissioners has the authority to decide what bridges shall be constructed or repaired, their opinion after the money is collected would be as good if not better than previous to making the levy. The estimate prepared by the county engineer must necessarily be approximate and he may fall considerably short of having sufficient money to build the bridges required, and as a result there is a tendency on the part of the board of county commissioners to disregard the law as now worded.

12. BRIDGE LEVY. The present limit of one mill as the county bridge levy is not sufficient to handle the bridges in all counties. Some counties can keep well within this limit and

levy very small bridge funds, but there are counties which cannot complete the necessary bridges without an increased levy. We would, therefore, recommend that a maximum limit of two mills be substituted for the present limit of one mill.

13. ERROR IN WORDING. The last paragraph of section 2, chapter 80, Laws of 1917, contains the following wording: "and in case of a township bridge or culvert, the same shall be referred to the board of county commissioners, who shall proceed in the manner described above, and their decision shall be final and binding on the board of township commissioners." This section was evidently inserted in the law by mistake, and really belongs with section 22, chapter 80, Laws of 1917, where it is also found. We would, therefore, recommend that section 2 be amended to omit the objectionable paragraph.

14. BRIDGES COSTING OVER $300 ON TOWNSHIP ROADS. Section 4, chapter 80, Laws of 1917, requires that the township shall build all bridges on township roads the engineer's estimated cost of which is under $300, and the county shall build all bridges on township roads the engineer's estimated cost of which exceeds $300. This provision is not working satisfactorily and places a burden on the county to bear the total cost of a number of small bridges which should be paid in part at least by the townships. We would recommend that this section be amended so that the townships may assist in the construction of bridges on township roads, the engineer's estimated cost of which exceeds $300, to the extent of $300 on any such bridge, the supervision of construction remaining in the hands of the county, wherever any county funds are applied toward the construction or maintenance of the bridge.

15. BRIDGE CONSTRUCTION BY DAY LABOR. Section 16, chapter 80, Laws of 1917, provides that the county can employ labor, purchase or rent equipment and construct bridges by the day-labor system under the direction of the county engineer: Provided, that they shall not construct by this system any bridge the estimated cost of which exceeds $1,000. There are a number of counties in the state which are so equipped and organized as to be able to handle larger bridges, while quite a number of other counties could not produce good construction, due to lack of organization and equipment. We would recommend that this section be amended so that the board of county

PLATE II.

BRIDGE ON LABETTE COUNTY FEDERAL AID PROJECT No. 2.

commissioners of any county, when they consider they are able to handle the construction of a bridge, the estimated cost of which exceeds $1,000, can apply to the State Highway Commission for permission to construct said bridge by the lay-labor system. The Commission should then be required to make such investigation as is necessary to determine the ability of the county to carry on this work, as regards equipment, superintendence and organization, and if the Commission finds that the county can handle the construction, they would then be allowed to issue an authorization for the county to proceed by the day-labor system.

16. REPORT OF COUNTY CLERK. Section 21, chapter 80, Laws of 1917, requires the county clerk to keep a separate itemized account of all expenditures for the construction and maintenance of each county bridge and culvert in a book prepared for that purpose, and on completion thereof a duplicate statement of the cost shall be filed at once with the State Highway Commission. The information required in this record and report must be obtained by the clerk from the county engineer, and we would, therefore, recommend that the copy of this record and making the report be required of the county engineer instead of the clerk.

17. ENCROACHMENT ON ROADWAYS. Section 4815, General Statutes of 1915, allows the owner of land to set a fence in the public highway at a distance not exceeding eight feet from the side line of such highway, and to continue to maintain such fence for a time not exceeding five years, in order to start the growth of a hedge fence. This section of the law encourages a very bad practice in allowing the encroachment on the highways. We have encountered considerable difficulty where hard-surfaced road improvement, and even the grading of earth roads, is contemplated, due to encroachment, and we would urgently recommend that this section of the law be repealed.

18. RIGHT OF WAY FOR ROAD IMPROVEMENT. When a benefit district has been formed and petitions circulated and filed for the improvement of a section of public highway, it is frequently found that slight relocations are necessary in order to safeguard the public and get proper construction; also it is frequently necessary to widen the right of way in order to con-

struct proper cuts, fills and ditches. Under the present laws, in order to obtain additional right of way it is necessary to work under the provisions of the general road law of 1911, which requires a petition by twelve householders, viewers appointed, a view made, etc. This causes additional expense and delay, which is apparently unnecessary. We would, therefore, suggest that chapter 265 be so amended as to authorize the board of county commissioners to purchase additional right of way for the highway or for the elimination of sharp corners or dangerous places when improvement covered by a benefit district petition has been declared a public utility by them, without complying with the provisions of the general road law of 1911, and that in the event the property owners refuse to sell, they could exercise the right of eminent domain by authority of said petition. Further, that when a petition for the improvement of a public road in accordance with the provisions of chapter 265 has been filed with the board of county commissioners, and said petition designates that the road follow a route which is not a public highway when the petition is filed, said petition should constitute authority for the board of county commissioners to purchase the necessary right of way or to exercise the right of eminent domain.

PART II.

ESTABLISHMENT OF AN ACCOUNTING SYSTEM.

UNDER section 6, chapter 264, Session Laws of 1917, one of the duties of the State Highway Commission was set out as follows: "It shall require the state accountant to devise a uniform system of auditing and accounting of road and bridge moneys levied and expended, which system shall be used by every township and county in the state."

As soon as possible after the organization of the State Highway Commission, the assistance of the state accountant was solicited for the preparation of a uniform system of accounting.

In order to get as close as possible to the persons who would use this system of accounting, it was decided to appoint a committee of county engineers who had been using some sort of an accounting system and have them meet with the state highway engineer, the road engineer, the bridge engineer, and the state accountant to formulate a uniform system to be used throughout the state. This meeting was held in Topeka early in 1917 and the present adopted system was formulated by this committee and submitted to the State Highway Commission for their approval. After it was approved, the printing companies were requested to make proofs of the required forms and books, and after these proofs were obtained copies were sent to all companies engaged in printing books and stationery for county officers and a complete set of forms was furnished to each county engineer and the officials were instructed to procure the necessary forms from the various printing companies.

In formulating the accounting system, the methods used by the states of Iowa, Minnesota, Wisconsin, Illinois, Michigan and several other states were taken as a guide and it was endeavored to get the most complete and practical system of accounting that could possibly be devised.

From the system of accounting the annual reports of the county engineer, county clerk and township officials were de-

rived, so that the information could easily be taken from the standard system of accounting.

After having used this system for about one and one-half years, the various duplications and repetitions required by these forms and any impractical features are being determined, and it is intended that the system will be revised and simplified. Some complaint has been received from township and county officials that the accounts for township officers are too extensive and beyond the ability of the average township official. There is nothing in the system of accounting that could not be understood by anyone having a common-school education, but in order to make it still more easily understood, a few of the forms will be eliminated and several will be combined so as to give the greatest degree of simplicity.

APPROVAL OF COUNTY ROAD SYSTEMS.

One of the duties of the State Highway Commission which has been very difficult to carry out has been the matter of laying out and approving a system of county roads. The road systems which had previously been established in many of the counties were laid out without regard to connecting with other counties and producing a through connected system of roads between cities and trading centers. Each county seemed to feel that all changes made to produce a connected system should be by the other county; therefore, considerable time has been occupied in examining road systems, hearing the arguments of delegations, and finally agreeing upon systems which are satisfactory to all parties concerned. With but few exceptions, the road systems are now approved to the mutual satisfaction of the people throughout the state.

The approval of the county road systems has also been delayed, due to the inability of the Commission to carry out their orders regarding the elimination of railroad grade crossings on account of the attitude of the United States Railroad Administration. The Railroad Administration seems to feel that there should be no expenditures for work of this character as long as the railroads are under government control, and it has only been in minor cases that the orders of the Commission have been completely carried out.

STANDARD PLANS AND SPECIFICATIONS FOR ROADS.

Section 6, chapter 264, Laws of 1917, in outlining the duties of the State Highway Commission, provides that "it shall devise and adopt standard plans and specifications for road, bridge and culvert construction and maintenance suited to the needs of the different counties of the state, and furnish the same to the several county engineers." In compliance with this requirement, as soon as the State Highway Commission was organized, work was started on the preparation of standard specifications for road construction. The plans and specifications of the different state highway departments, municipalities and material companies and the standard specifications of the American Society of Testing Materials were carefully considered, together with the requirements of the laws of Kansas and the governing local conditions.

A complete set of these specifications is made up as follows:

A standard cover sheet, which contains space for listing the title of the work, the location by county, section and type.

A single loose sheet called "advertisement," which contains a brief description of the work and is used in connection with the specifications and to advertise for bids in various publications.

A booklet on general specifications. The different features of this booklet are applicable to all types of hard-surfaced roads, and contain such items as definition of terms, instructions to bidders, the award and execution of the contract, general provisions, excavation and embankment, subgrade, borrow, earth shoulders, etc.

Six separate booklets of detailed specifications for hard-surfaced roads were prepared, covering the following types: gravel, water-bound macadam, bituminous macadam, bituminous concrete, Portland cement concrete and brick.

The gravel road is divided into four parts: Feather-edge construction, trench construction, one-course and two-course construction.

The bituminous macadam specifications cover the use of four different kinds of bituminous materials, three of asphalt and one of refined tar, to be used in what is known as the "penetration method." Connected with the bituminous macadam speci-

fications are the specifications for bituminous surfaces, which cover the application of a surface treatment of bituminous material to old water-bound macadam or bituminous macadam road for maintenance purposes. These provide for the use of three kinds of asphalt and two kinds of tar.

The bituminous concrete road specifications are designed to construct a pavement by what is commonly known as the "Topeka type," and covers the use of three kinds of asphalt.

The Portland cement concrete specifications are divided into two types of construction—one-course and two-course. The scarcity of material of sufficient hardness for the wearing surface on the concrete road will necessite the use, in a great many places in Kansas, of the two-course type of concrete roads.

The brick-road specifications are likewise divided into two parts, to cover the monolithic type and the sand-cement superfoundation type. There has been recognized in these specifications the need of uniformity in paving brick, the most modern methods of construction, the monolithic type, where the brick is laid on the concrete base before the concrete has obtained its initial set, thus making a monolithic slab throughout. The sand-cement superfoundation is designed to take the place of the old sand-cushion type, using a mixture of one part cement to three parts sand in place of plain sand in the cushion.

The drainage structures are covered in a separate booklet and contain provisions for vitrified pipe underdrains, clay or narrow pipe underdrains, cement grouted gravel or macadam gutters, cement grouted cobble gutters, wooden guard-railing, rip rap, survey monuments, blind underdrains and markers.

The proposal sheets consist of a folder of four pages, and provide space for the contractor to submit a statement of the character and capacity of the plant and equipment which is owned or controlled by him, his financial backing and experience and also unit prices on the various items of work. The contract consists of one sheet, which refers to the plans and specifications and provides for the signatures of the county commissioners and the contractor.

The road contractor's bond covers the requirements of the law on this subject and provides for approval by the chairman of the board of county commissioners and county attorney.

Earth roads, being so different from the hard-surfaced type, required the design of separate specifications and insert sheets therefor. This booklet is designed to be used for the same cover as the hard-surfaced type, and is made up as follows:

Loose sheet covering the advertisement, which contains a brief description of the work on one side and the definition of terms on the reverse side.

Proposal, with instructions for submitting bids and space for unit prices covering the various items of work.

Booklet of specifications for earth and oiled earth road construction, covering in detail the construction of an oiled earth road and the surface oiling after construction, and provides for the use of two kinds of road oil for this purpose.

The drainage structures and other features necessary on an earth road are combined in this booklet and include tile underdrains, cement grouted gravel or macadam gutters, cement grouted cobble gutters, wooden guardrail, rip rap, survey monuments and blind underdrains.

The township road contract is designed to go with the earth road specifications, although the same contract used on the hard-surfaced roads can apply when an earth road is let by the county.

The township road contractor's bond is very similar to the county road contractor's bond, and either the county or township form can be used with the earth road specifications.

Complete sets of all these specifications were assembled, stamped as official copies, and one copy sent to the county attorney and one to the county engineer of each county in Kansas. Various sets of these specifications have been sent to the different State Highway Commissions in return for their courtesy in sending copies of their specifications.

Standard instructions for making surveys and the form and arrangement of plans have been prepared and sent to the different county engineers. The survey instructions were made up in mimeograph sheets.

The standard form of plans is composed of four sheets: 1. Title Sheet, 2. Plan and Profile. 3. Standard Cross Section. 4. Small title sheet to be used on work other than Federal aid and substitutes for a part of sheet 1.

All of these standards were prepared in accordance with

the standard form and arrangement as required by the U. S. Office of Public Roads for Federal aid plans.

A mimeograph booklet containing seven sheets and four blue prints was furnished each county engineer showing the method of estimating various kinds of road work. This estimating data was taken from information obtained from other states and given out to show the county engineer how to proceed to make his estimates. The blue print sheets were curves designed to cover the hauling cost on different kinds of materials.

Standard typical cross sections of different types of improvements have been prepared. These typical sections are based on widths of hard-surfaced roadway in three classes—10-foot, 16-foot, and 18-foot. The minimum width of shoulders is four feet, using not less than a 24-foot total roadway for the 10-foot pavements. It is recognized that variable conditions from the ones shown on the standards will at times be encountered, in which case the county engineer is expected to obtain approval before preparing his plans.

STANDARD PLANS AND SPECIFICATIONS FOR BRIDGES.

In compliance with the requirements of the law, the State Highway Commission, soon after its organization, started work on standard plans and specifications for bridge construction. After carefully considering the plans and specifications of other highway departments and the standard specifications of the American Society of Testing Materials, complete standard specifications were prepared in harmony with good engineering practice and in accordance with the laws of Kansas.

The standard specifications for bridge and culvert construction were arranged in booklet form under two covers. One is entitled "Standard Specifications for Materials and Construction of Cast Iron, Reinforced Concrete, Corrugated Metal and Clay Pipe Culverts." This booklet under a paragraph of general clauses sets forth briefly the requirements of the contract, the letting, and the construction materials. Separate paragraphs on cast iron, concrete, corrugated iron and clay pipe cover the quality of the material, accepted brands, manufacturers' certified analysis, maximum and minimum dimensions

and weights, tests and inspection. A final paragraph deals with the process of field construction. As a supplement to this booklet, another one of etchings of the standard plans of the pipe culverts has been prepared. Sheets of standard forms of the following are also furnished with the booklet to county engineers to be used in letting culvert work: "Notice to Contractors," indicating the date and place of letting and the description and amount of proposed bridge and culvert work to be done; "Proposal," containing a schedule of items and bids; "Contract and Specifications," containing the agreement and signature; and the "Contractor's Bond."

The other booklet, entitled "Standard Specifications for Highway, Bridge and Culvert Construction," contains detailed specifications for materials, bridge design and construction. The general clauses take up points of importance, such as a definition of terms, the intent and interpretation of plans and specifications, changes and alterations in plans and specifications, character of workmanship and time of completion of work, payments, etc. A chapter on detailed specifications for concrete materials and construction follows, specifying the quality of materials, sizes, proportion and classes of concrete and methods of construction.

Specifications for reinforcing steel and expansion devices set forth the required quality of steel for reinforcement and of the iron for rockers and plates, specifying the allowable stresses in each. Instructions for the construction of rocker pockets and bituminous felt joints are also included.

Separate paragraphs cover stone masonry, timber piling and foundations, specifying the methods of construction and allowable stresses and pressures.

The design of reinforced concrete and steel bridges is governed by a number of paragraphs under the title of "Types of Bridges and Culverts, with Loadings and Roadways," which, as the title would indicate, takes up the classification of bridges under two heads—concrete and steel, specifying the dead and live loads and allowable stresses. Additional paragraphs on box culverts, slab and girder bridges, concrete arches and steel superstructures take up the specifications of material design and construction in detail.

Finally, a paragraph on paint and painting, and one on overhead crossings and subways or underpasses, conclude the booklet.

STANDARDIZATION OF HIGHWAY BRIDGE CONSTRUCTION.

Owing to the diversified practice of bridge building in the various counties throughout the state, and in consideration of the lack of uniformity in design as well as efficiency, it was found necessary for economic and æsthetic reasons to design and adopt specifications for a set of standard culverts and bridges to be used by the county engineers in future construction. In accordance therewith the bridge department of the State Highway Commission designed a set of structures ranging from the simple, plain, concrete pipe culvert to the more complicated reinforced concrete girder.

TECHNICAL FEATURES OF THE STANDARDS DESIGNED.

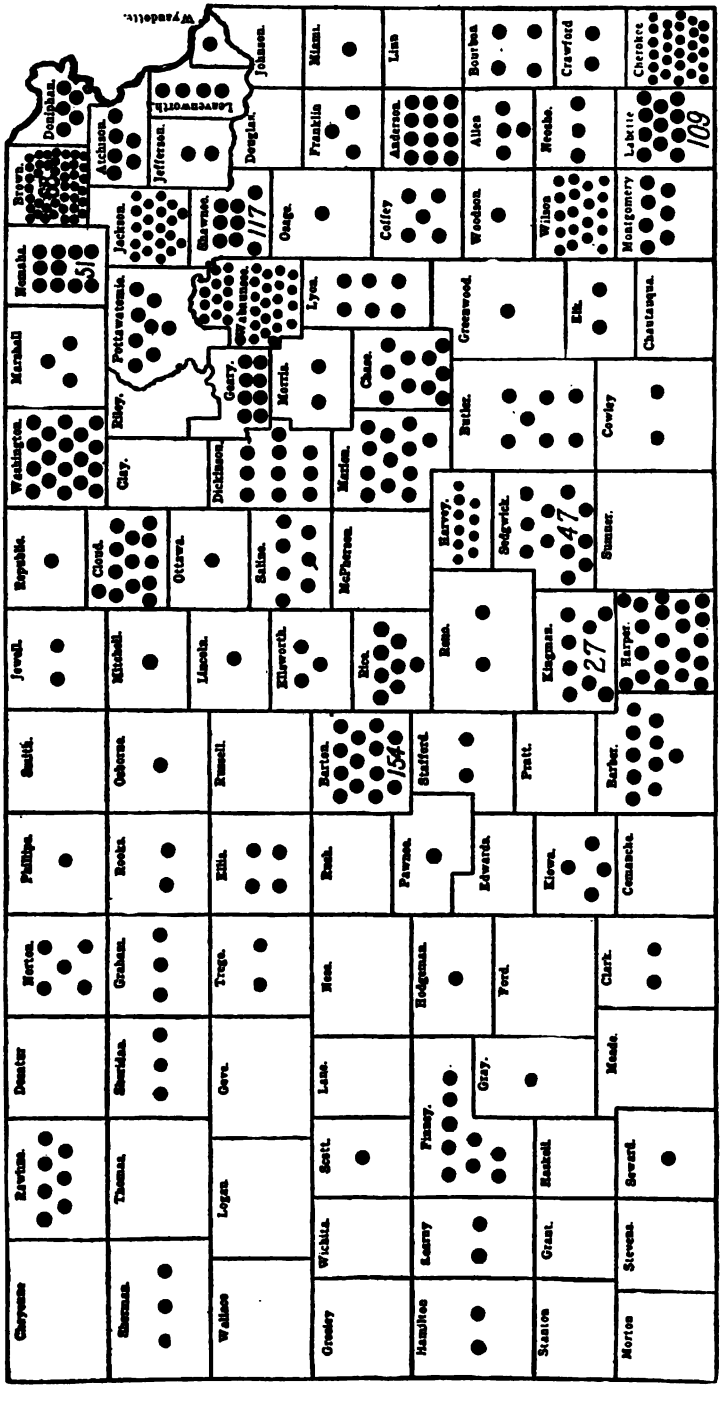
The principal types of standard structures thus far designed are the standard pipe culvert, standard reinforced box culvert, standard unit abutment, standard slab and standard through girder and deck girder. These will be taken up in the order given.

STANDARD PIPE CULVERT.

Four kinds of pipe ranging from 12″ to 36″ in diameter have been adopted for pipe culverts; viz., cast iron, reinforced concrete, corrugated metal, and encased vitrified clay pipe. Each of the aforesaid pipe culverts have one of three types of concrete head wall; namely, the straight head wall with a solid concrete rail, the head wall with flaring wings and a solid concrete rail, or the low straight head wall with no rail. The various types of head walls for each kind of pipe culvert are detailed in a separate sheet and are supplemented on that sheet by a table of dimensions and a bill of material and the quantities on that particular culvert for diameter of from 12″ to 36″. With this arrangement, it is necessary to have only twelve sheets of plans to cover the designs of 240 circular pipe culverts differing in size or type.

THE STANDARD REINFORCED BOX CULVERT.

The standardization of the box culverts was a comparatively simple matter. Square openings were adopted and standards were designed for spans of 2, 3, 4 and 5 feet. The 2′ x 2′ and the 3′ x 3′ box culverts are similar structures, the latter being of somewhat heavier design and larger dimensions. These designs employ the straight wing walls in the vertical plane with



BRIDGE PLANS WHICH HAVE BEEN FURNISHED OR APPROVED BY THE STATE HIGHWAY COMMISSION TO JANUARY 1, 1919.

Total, 825; cost, $1,166,513.30.

the head wall, being in fact a part of the head wall, and of such length as to retain a 1½ to 1 fill over the box. A curb, a variable distance above the slab, depending upon the fill, marks the top of the head wall, upon which is built monolithic with the head wall one of two types of standard rails, namely, the solid or open reinforced concrete guard rail. The solid rail, like the open, is 3′ 3″ in height above the curb and extends over the entire head wall including the wings. To relieve the headwalls with solid rails of that massive appearance, panels are inserted in the rails. The open rails consist of three 9″ x 12″ posts supporting two 4″ x 6″ rails, 18″ on centers. The posts are anchored into the head wall and the rails amply reinforced.

Under heavy fills the guard rails are omitted where the culverts are lengthened sufficiently to emerge from the slope of the fill; a guard fence being built along the shoulder of the road for protection to traffic. The plans of all standard culverts are supplemented by a bill of material and table of dimensions.

The 4′ x 4′ and the 5′ x 5′ standard box culverts differ from the 2′ x 2′ and the 3′ x 3′ in that they are designed with flaring plain concrete wing walls of the plain concrete retaining wall type and at 45° to the face of the head wall. The tops of the wings slope to conform with the slope of the fill and are of such length as to retain a 1½ to 1 fill. The head walls extend 18″ beyond the box on each side and support one of the two types of standard guard rails. These designs are supplemented by bending diagrams of the main steel reinforcing.

STANDARD UNIT ABUTMENTS.

In preparing designs for standard abutment construction, the principles governing the design of a retaining wall have been adhered to, taking into account the vertical thrust due to the load of the superstructure. Due to the demand for low abutments, the department has so far developed mainly the designs of the plain concrete abutment to accommodate the slab, through and deck girders. Two types of plain concrete abutment have been adopted as standards; the one with a horizontal top of wing with standard guard rail and the other with a sloping wing. The department is from time to time called upon for designs of abutments of proportions that will call for a more economical design than the plain concrete re-

taining wall type, and to meet this situation, reinforced concrete abutments with tied back wings have been designed. While these designs are not standards, they are typical of the future standard designs and are used to advantage in comparing the economy of various types of abutments. In the design of the abutments as in the design of culverts, the wing walls are made of sufficient length to prevent the fill from obstructing the waterway.

SLAB BRIDGES.

The slab type of construction used for spans from 8 to 20 feet are, as the name implies, simple slabs of concrete supported by the abutment at each end, reinforced longitudinally with a set of bars so bent as to take care of both bending and shear. Standards have been prepared for spans of 8, 10, 12, 14, 16, 18 and 20 feet, each with roadways of 16, 18, 20, 22 and 24 feet; also the two types of handrail are included on these plans. All plans are supplemented by a bill of material and bending diagrams for the reinforcing steel.

STANDARD THROUGH AND DECK GIRDERS.

Of the through and deck girder bridges, the latter is the more economical, containing considerably less material, due to the thinner floor slab employed, and it is for this reason, due to the scarcity of suitable and available stone and gravel in Kansas, that the deck girder is in greater demand. However, a number of through girders for spans of 30, 40, 45 and 50 feet for roadways of 16 and 18 feet have been prepared.

A more complete set of deck girder standards have been made and now include spans of 25, 30, 35, 40, 45 and 50 feet with roadways of 16, 18 and 20 feet. These standards provide, with a few exceptions, for the demands from county engineers. In the event that a bridge of greater span is required, a special design is made and kept on file for future reference. Many of these special designs, which are in detail similar to the standards but of different dimensions, can, with slight alterations, be used many times.

The girders in the through girder type serve as guard rails, and being very prominent in appearance are ornamented with simple panels and coping. Both the solid and open guard rails are employed in the deck girder designs.

No standardization of steel bridges has been adopted by this department as the demand for this sort of structure during recent years has been very limited.

TESTING ROAD BUILDING MATERIALS.

Herewith please find a report of the work of the Road Materials Testing Laboratory, Department of Applied Mechanics, Kansas State Agricultural College.

GENERAL.

The state legislature of 1917 created the Kansas Highway Commission, and designed this laboratory to be the official testing laboratory—chapter 264, Laws of 1917 (laws relating to highways and bridges), section 5—stating that "the engineering testing laboratory at the Kansas State Agricultural College at Manhattan shall be available for the use of the Commission and the state highway engineer at all times."

By conferring with the state highway engineer, the dean of engineering and the professor of applied mechanics, this law has been interpreted to mean that the members of the department of applied mechanics should supervise and conduct the testing of the road materials used on the roads of Kansas, and this testing we have proceeded to do. There was no appropriation made for additional men or equipment. Our laboratory was well equipped to make the necessary tests on nonbituminous road materials, such as sand, gravel, stone, clay, cement, brick and steel, but we had no apparatus for the testing of bituminous materials, such as tars, asphalts and road oils. From our department budget we have equipped a splendid working laboratory for the testing of bituminous materials. While we now have a complete equipment for the testing of all classes of road materials, we do not have enough to handle the large number of samples that will be necessary to test when the present season's program of road construction gets into full action, and with the amount of road construction under the direction of the State Highway Commission increasing from year to year, it is here recommended that the Commission make provision for the testing laboratory in the yearly budget, in order that the laboratory may keep pace, both in equipment and personnel, with the ever-increasing demands put upon the testing organization.

PHYSICAL TESTING OF NON-BITUMINOUS ROAD MATERIALS.

Modern methods of testing materials for highway construction have been developed during the past forty years. The first systematic attempts to determine the value of rock for road-building purposes by means of laboratory tests were made in France, where, in 1878, a road-material laboratory was founded in the French School of Bridges and Roads, at Paris. Here the Deval abrasion test was adopted, and this test, with slight modifications, has been accepted as standard throughout the United States, although recent developments in testing have demonstrated that this machine can be greatly improved, in order to obtain results more nearly approximating conditions found in actual wear of roads.

The Office of Public Roads and Rural Engineering of the United States Department of Agriculture has done splendid work in standardizing methods of testing, and the publications of the office of Public Roads are valuable sources of information regarding all phases of highway improvement. Among these publications worthy of the consideration of county engineers and having a direct bearing upon the work of the testing laboratory are the following bulletins of the Office of Public Roads:

No. 314, Methods for the Examination of Bituminous Road Materials.

No. 347, Methods for the Determination of Physical Properties of Road Building Rock.

No. 555, Standard Forms for Specifications Tests and Reports.

No. 691, Typical Specifications for Bituminous Road Materials.

No. 704, Typical Specifications for Nonbituminous Road Materials.

In order to make an intelligent selection of road materials suitable for use in construction, all material should be tested according to the methods of standard practice. Engineers submitting material to the testing laboratory should accompany all samples with complete information regarding the type of proposed construction, as the laboratory tests applied to a material are determined by the function of that material in the structure. For example, a rock that is to be used in macadam construction would be subjected to different tests than one to be used as an aggregate in a concrete pavement. Again, a rock that is to form a part of the aggregate in a concrete pavement should be tested differently from one that is to be used as an aggregate in a reinforced concrete bridge. County engineers

submitting samples to be tested should endeavor to aid the testing engineers by supplying complete information regarding the material and the type of construction.

TESTS MADE UPON ROCK.

A rock used in road construction has three important qualities that should be investigated and several minor qualities that will serve to indicate its suitability for use. The important qualities are hardness, toughness and cementation value.

Hardness is the physical property of a rock to resist the abrasive action of traffic. Two tests are used in the determination of the hardness. The Deval abrasion machine is used to determine the percent wear, from which the French coefficient is computed. The Dorry Hardness Machine is used to determine the coefficient of hardness. These values are important in all types of construction.

Toughness is the physical property of a rock to resist fracture under impact. The Page impact machine for toughness is used to determine the toughness of the material. This determination is used in cement concrete construction.

Cementation value or binding power is the ability which the rock powder, when wet, possesses of binding the larger fragments together. The Page impact machine for cementation is used to determine the cementation value. This determination is used in the rock and screenings of water-bound macadam, in the base course of bituminous macadam and in gravel roads. The minor qualities of rock include the specific gravity; weight per cubic foot, in pounds; water absorbed per cubic foot, in pounds and in percent.

THE ABRASION TEST.

This test is made with the Deval abrasion machine (see figure 1.) This machine consists of one or more cast-iron cylinders, 20 cm. (8 inches, approximately) in diameter and 34 cm. (13 inches, approximately) in depth, mounted upon a shaft in such a way that the axes of the cylinders are inclined at an angle of 30 degrees with the axis of rotation. This test is made upon a 5 kilogram (about 11 pounds) rock sample, consisting of as nearly as possible 50 pieces of uniform size. After the sample is placed in the cylinder, the machine is given 10,000 revolutions at the rate of 30 per minute.

The percent of the material, by weight, worn off so as to pass a No. 16 mesh sieve, is taken as an indication of the

PLATE III.

HANOVER BRIDGE, WASHINGTON COUNTY.

OSWEGO BRIDGE, LABETTE COUNTY.

NEWTON BRIDGE, HARVEY COUNTY.

PLATE IV.

KEARNY COUNTY.

CHEROKEE COUNTY.

WOODRUFF BRIDGE, WILSON COUNTY.

amount of wear. The amount of wear is expressed either as a percent wear or as the French coefficient. The French coefficient is more widely used and is equal to $\frac{40'}{\text{Percent wear}}$.

A French coefficient of 8 is low, 8 to 13 medium, 14 to 20 high, and above 20 very high.

THE HARDNESS TEST.

This test is made with the Dorry hardness machine (see figure 2). This machine consists of a revolving steel disk, upon which is fed a standard quartz sand of uniform size, between 30 and 40 mesh sieves. The diamond core drill (see figure 3) is used to cut the test specimens from the rock. The specimens consist of cylinders, 25 mm. (about 1 inch) in diameter and 10 cm. (about 4 inches) in length and are ground off level by means of the diamond saw (see figure 4) and grinding lap. The test pieces are held against the revolving disk in grips in a vertical position. The weight of the grip and test specimen should be 1,250 grams (about 2¾ pounds) at the beginning of the test and the specimen should carry the entire weight. The machine is run for 1,000 revolutions; the specimens are then taken out and reversed end for end in the grips, and another 1,000 revolutions run. The loss in weight of the specimen is determined at the end of each 1,000 revolutions, and the average loss in weight is used in stating the hardness of the rock, which is expressed by the formula, coefficient of hardness $= 20 - \frac{1}{3}$ W, where W = the loss in grams per 1,000 revolutions.

Rocks having a coefficient of hardness below 14 are soft; 14 to 17 medium; above 17 hard.

THE TOUGHNESS TEST.

This test is made with the Page impact machine for toughness (see figure 5), which consists of a hammer, an intervening plunger, and an anvil. The hammer is a 2 kilogram (about 4.4 pounds) weight, which drops on the plunger of 1 kilogram weight, which transmits the blow to the test specimen. The test specimen is drilled from the rock in a manner similar to the Hardness Test. The size of the test specimen is 25 mm. (about 1 inch) in diameter and 25 mm. in length. The test consists of a centimeter fall of the hammer for the first blow and an increased fall of one centimeter for each succeeding

blow until failure of the specimen occurs. The number of blows necessary to produce rupture is taken as an indication of the toughness.

A result of 13 is low, 13 to 19 medium, and above 19 high.

CEMENTATION VALUE.

This test is made with the Page impact machine for cementation (see figure 6). A sample of the rock powders is prepared in the ball mill (see figure 7). Five hundred grams (about 1.1 pounds) of rock, broken to pass a ½-inch opening, is placed in the ball mill with 90 c. c. (about 0.2 pound) of water and 2 steel shot weighing 20 pounds. The 90 c. c. of water is just sufficient to make a stiff paste of the rock powders. The sample is ground in the ball mill for 5,000 revolutions. The resulting paste is then taken from the ball mill and molded into briquettes (cylinders) 25 mm. (about 1 inch) in diameter and 25 mm. high by means of the briquette forming machine (see figure 8) subjecting the briquette during forming to a pressure of 132 kilograms per square centimeter (1,877 pounds per square inch). Five briquettes are made, dried in air for 20 hours, placed in a drying oven for 4 hours, and then in a desiccator for 20 minutes, and then tested in the Page impact machine for cementation. This machine consists of a one-kilogram (about 2.2 pounds) hammer, which drops one centimeter (about 0.39 inch), striking a plunger which transmits the blow to the test specimen. The number of blows required to rupture the briquette is taken as an indication of the cementing value of rock powders. Screenings are tested in a similar manner.

A value of 10 is low; 10 to 25, fair; 25 to 75, good; 75 to 100, very good; and over 100, excellent.

The following table gives the values, as adopted by the Kansas Highway Commission, and in force at the present writing.

GENERAL LIMITING TEST VALUES FOR BROKEN STONE.

Type of Construction	Course	French Coefficient of Wear	Toughness	Cementation
Water Bound Macadam	Wearing Base	5 3		Screenings 25
Bituminous Macadam	Wearing Base	6 3		25
Bituminous Concrete	Base	6		
Cement Concrete	Surface Base	8 6	6 4	
Brick	Base	6		

TESTS MADE UPON GRAVEL.

For use in gravel roads, the following tests are made: Abrasion test, cementation value, mechanical analysis, determination of amount of silt and clay.

It is impossible to make a test for toughness upon gravel, as the material is made up almost entirely of small pieces. The abrasion test is used to indicate the comparative toughness and hardness of the sample. The abrasion test and the cementation test made upon gravel are similar to the same tests upon stone.

The mechanical analysis of a gravel consists in passing a sample, composed of about 5,000 grams (11 pounds), through screens having circular openings of the following sizes: 3 inches, 2½, 2, 1½, 1, ¾, ½ and ¼. Material that passes the ¼ screen is classed as sand. The percent passing each screen and retained on the next smaller is recorded. The state specifications give limiting values for different types of construction.

The amount of silt and clay is determined by the washing test, in which the sample is placed in a shallow pan, covered with water, thoroughly agitated, and the water decanted. This operation is repeated until the water above the sample is perfectly clear. The difference in the final weight (after drying) and the initial weight is computed as a percent of the initial weight and recorded as the percent silt and clay. Silt is defined as the fine particles that will pass a No. 200 mesh sieve, and this is determined before the washing test.

For use in concrete construction, the gravel is subjected to

the same tests as for gravel roads, and in addition concrete cylinders, 8 by 16 inches, are made, in the proportion of 1:2:4. These cylinders are tested in compression in a Universal testing machine, after 28 days, and the concrete should show a compressive strength of at least 2,000 pounds per square inch.

TESTS MADE UPON SAND.

Tests made upon sand include mechanical analysis, washing test, and for use in concrete, tensile strength of 1:3 mortar briquettes.

The mechanical analysis consists in the passing of a 100-gram sample through the following sieves: 10-mesh, 20, 30, 40, 50, 80, 100 and 200, and recording the percent retained on each sieve. The State Highway Commission specifies tables of graduation of fine aggregate for various types of construction.

The washing test for sand is similar to the washing test for gravel. In addition to determining the amount of silt and sand present, a test is made to determine the amount of organic matter in the silt, and from this the percent of organic matter in the original sample is determined. For use in concrete construction the sand should contain not to exceed 3 percent, by weight, of organic matter and clay combined, and not to exceed 0.5 percent, by weight, of organic matter.

The tensile test of the cement-sand briquette is made in comparison with a cement-sand briquette of same mix (1:3), using standard Ottawa sand. The sample sand should show a strength at least equal to that of the Ottawa sand.

A table showing results of tests on all road materials submitted to this laboratory accompanies and forms a part of this report.

CONCLUSION.

The work of the laboratory has been partly handicapped by war conditions in that the personnel of the testing staff was continually changing, but despite this serious problem of a scarcity of technical men, the testing work of the laboratory has kept pace with the construction throughout the state.

The work of the testing laboratory will increase with the large amount of highway improvement in prospect, and we assure you of our continued hearty coöperation in our endeavors to maintain high standards of engineering testing.

Respectfully submitted. W. B. WENDT,

Associate Professor of Applied Mechanics,
Testing Engineer.

FEDERAL AID PROJECTS.

No. 1.—MITCHELL COUNTY.

THE BELOIT-ASHERVILLE ROAD.

This project involves the construction of a concrete road 16 feet in width, extending from Beloit, through Asherville, to the Cloud county line. It is on the route of the Midland Trail. This project extends through a rich farming community and serves as a connecting link in the road from Beloit to Glasco.

The petition for this road was approved by the board of county commissioners on August 9, 1917. The application for Federal aid was allowed by the State Highway Commission on September 14, 1917. The final approval by the government was delayed for a considerable length of time, due to an insufficient mileage of rural post roads, which objectionable feature was removed by a petition to relocate the rural route. Approval was delayed until October 18, 1918.

The surveys for this road have been completed. The plans have been drawn to the point of establishing a grade line. No work was performed on these plans during the summer and fall of 1918, due to the unsettled war conditions, which caused the board of county commissioners to hesitate in carrying out this construction.

An approximate estimate of the cost of this work is $229,-130, and the approximate Federal aid that will be received on a 15% basis is $34,369.50.

No. 2.—LABETTE COUNTY.

THIRTY-SECOND STREET ROAD, OZARK TRAIL ROAD AND KING OF TRAILS ROAD.

This project involves the construction of 44.5 miles of gravel road 16 feet in width. The project starts at the Oklahoma line south of Chetopa, follows the route of the King of Trails through Chetopa, north to Oswego. It then follows approximately the route of the Ozark Trail from Oswego to Altamont, through Mound Valley, to the Montgomery county line. From Altamont to Parsons the road follows what is locally known as the Thirty-second street road.

Plans for two sections of this work have been completed and approved by the U. S. Office of Public Roads. Section A extends from Oswego to Chetopa and is 9.14 miles in length.

This section will be built by the feather-edge method of gravel road construction. Section B extends from Parsons to Altamont and is 10.159 miles in length. It will be constructed by the trench method, using crushed stone for the base and gravel for the top course. These two sections will be let early in the season, so that work can start in the spring.

The approximate estimate on the entire 44.5 miles is $510,099.39. The approximate Federal aid that will be received is $76,514.91.

No. 3.—BARTON COUNTY.

SANTA FE TRAIL.

This project consists of the construction of a monolithic brick road on the Old Santa Fe Trail extending from the Rice county line east of Ellinwood, through Ellinwood, Great Bend and ending at Pawnee Rock.

The total length of the improvement is 27.5 miles, and the width of the pavement will be 20 feet. The plans for this work are completed and approved by the state highway engineer and are now in the hands of the U. S. Office of Public Roads for their approval. Bids will be received for this contract during the first part of January, 1919.

An approximate estimate of the cost of this work is $852,032.50. The approximate Federal aid that will be received is $127,804.87.

No. 4.—SHAWNEE COUNTY.

LAWRENCE-TOPEKA STATE ROAD.

This project is a part of the road which has been designated as the Fort-to-Fort Highway. It begins at the east end of Sixth street in the city of Topeka, extends eastwardly through Tecumseh to the Douglas county line. The pavement will consist of an 18-foot Portland cement concrete roadway for a length of 10 miles.

The plans for this work have been completed and approved and are now in the hands of the Office of Public Roads awaiting their approval. The contract for this work will be let early in the spring. The approximate estimated cost is $273,400.60, for which there will be received about $41,010.09 Federal aid.

No. 5.—BOURBON COUNTY.

JEFFERSON HIGHWAY (NORTH OF FORT SCOTT).

This road is a part of the Jefferson Highway, extending from a point about three miles north of Fort Scott to Fulton and from Fulton to the north county line. It is a part of the Fort Scott-Kansas City Short Line Road. The Road to be constructed is 14 feet wide water-bound macadam for a length of 8.7 miles. The project statement has been approved by the Federal government, but no steps have been taken for the making of surveys or the preparation of plans.

The approximate estimated cost of this road is $60,812.44. The approximate Federal aid is $9,121.87.

No. 6.—BOURBON COUNTY.

FORT SCOTT-PITTSBURG ROAD.

This project is along the route of what is locally known as the Fort Scott-Pittsburg Short Line Road. It extends from the end of a macadam road southeast of Fort Scott to the Crawford county line. It will be constructed of water-bound macadam for a width of 14 feet and a length of 6.39 miles.

The project statement for this work has been approved by the Federal government, but no work has yet been performed toward the making of surveys or the preparation of estimates.

The estimated cost of this work is $50,175.75 and the approximate Federal aid that will be received is $7,526.36.

No. 7.—DOUGLAS COUNTY.

FORT-TO-FORT HIGHWAY.

This project begins at the northeast corner of Douglas county and extends southwesterly to Lawrence, thence westwardly to connect with the end of Project No. 4 in Shawnee county. The road will be constructed 18 feet in width for an approximate distance of 18.34 miles. The road will form a part of the Fort-to-Fort Highway and will be on the shortest route between Lawrence and Topeka. The plans for this road are complete and filed with the Office of Public Roads for their approval. The contract will probably be awarded early in the spring of 1919.

An approximate estimate of the cost of this road is $444,510. The approximate Federal aid that will be received is $66,676.50.

No. 8.—BOURBON COUNTY.

FORT SCOTT-WICHITA ROAD.

This road begins at a point about two miles west of Fort Scott and extends westwardly for a distance of eight miles along what is known as the Fort Scott-Wichita Highway.

The project statement for this road was submitted to the Federal government after the contract had been awarded and the construction of the road very nearly completed. Owing to the fact that the plans, specifications and estimates were not approved by the Federal government previous to the submission of the project statement and to the fact that the construction had not been supervised by engineers of the State Highway Commission or by the Federal engineers, the Government has held up the approval of this project. The road is being constructed 14 feet in width of water-bound macadam for a length of 8 miles.

The approximate estimated cost of this work is $35,908. The approximate Federal aid is $5,386.20.

No. 9.—BOURBON COUNTY.

JEFFERSON HIGHWAY (SOUTH OF FORT SCOTT).

This project follows the line of the Jefferson Highway through Pawnee Station to the Crawford county line. The project statement was submitted to the Office of Public Roads but approval has been withheld due to the fact that the contract was awarded previous to the submission of the project statement without the plans, specifications and estimates having been approved by the State Highway Engineer or by the government, also due to the fact that the construction was about 50 percent completed before the project statement was submitted and none of the work had been performed under the supervision of engineers of the State Highway Commission or of the Government.

The approximate estimated cost of this work is $48,000. The approximate Federal aid is $7,200.06.

No. 10.—GEARY COUNTY.

GOLDEN BELT ROAD (WEST OF JUNCTION CITY).

This project begins at the present concrete road about one mile west of Junction City and extends westwardly along the Golden Belt Road for a distance of 7.55 miles to the Dickinson county line. It is to be constructed of Portland cement con-

crete, 18 feet in width. The surveys for this work have been completed and plans partially prepared. It is the intention to receive bids on this work and award the contract early in the spring.

The approximate estimated cost of this work is $152,702.06. The approximate Federal aid to be received is $22,905.31.

No. 11.—SEDGWICK COUNTY.

CENTRAL AVENUE ROAD.

This road begins at the east end of Central avenue in the city of Wichita and extends eastwardly to the Butler county line. It is to be constructed of Portland cement concrete, 18 feet in width, using the two-course construction and a top course of Oklahoma granite. The total length of this road is 7.375.

The plans, specifications and estimates have been approved by the Federal government and a project agreement entered into, so that the contract for this work can be awarded early in the spring of 1919.

The approximate estimated cost of this work is $206,068.61. The approximate Federal aid is $30,910.29.

No. 13.—LEAVENWORTH COUNTY.

FORT-TO-FORT HIGHWAY.

This project is on the proposed Fort-to-Fort Highway and extends from the end of the Douglas county Project No. 7, through Tonganoxie, eastwardly to the Wyandotte county line with a one-mile spur into Basehor. This project is to be constructed of Portland cement concrete, 18 feet in width, and will have a total length of 22 miles.

The surveys for this work have been completed; the plans have been drawn to the point of establishing a grade line, computing the earth work and designing bridges. Bids will be received on this work sometime during the summer of 1919.

The approximate cost of this work is $548,963.61. The approximate Federal aid to be received is $82,344.54.

No. 14.—FORD COUNTY.

SANTA FE TRAIL ROAD.

This project follows the line of the Old Santa Fe Trail from Dodge City westwardly to the Gray county line. It is to be constructed of brick on a concrete base 20 feet in width and for a distance of about 11 miles. The project statement for

this work has been approved by the Office of Public Roads, but no steps have as yet been taken toward the making of surveys or the preparation of plans.

The approximate estimate of the cost is $386,848.66. The approximate Federal aid to be received is $58,027.30.

No. 15.—RENO COUNTY.

NEW SANTA FE TRAIL CUT-OFF.

This project extends from Hutchinson through Nickerson to the Rice county line and is located on what is known as the cut-off or connection between the New and Old Santa Fe Trail roads. It is to be constructed of brick, 18 feet in width, and for a length of 17.7 miles.

Surveys for this work are practically completed, and the plans are now being prepared. It is the intention to award the contract early in the spring of 1919.

The approximate estimated cost of this work is $623,834.02. The approximate Federal aid to be received is $93,575.10.

No. 16.—RICE COUNTY.

NEW SANTA FE TRAIL CUT-OFF.

This project is located on what is known as the cut-off or connection between the New and Old Santa Fe Trails. It extends from Sterling south to the Reno county line and connects with Project No. 15. This road is to be constructed of either Portland cement concrete or brick, 18 feet in width, for a distance of 2.31 miles.

The approximate estimated cost of a brick road on this project is $103,615.38, and the Federal aid to be received would be $15,542.31.

No steps have been taken as yet for the preparation of plans for this work.

No. 17.—GEARY COUNTY.

GOLDEN BELT ROAD (EAST OF JUNCTION CITY).

This road connects Project No. 12 with the city limits of Junction City. Owing to the construction of the Union Pacific railroad shops, it has been found necessary to relocate the highway, and practically the entire length of this project will be a relocation. The railroad company is donating to the county the estimated cost of constructing a new thirty-foot waterbound macadam road on the location of this road and the county will use this fund for the construction of a 20-foot brick road. This highway is a part of the connection between

Junction City and Fort Riley and is subject to an immense traffic. The length of the proposed improvement is .9 mile.

The approximate estimated cost is $39,947.16. The approximate Federal aid will be $9,000.

No. 18.—ALLEN COUNTY.

IOLA-MORAN ROAD.

This project is located on the Fort Scott-Wichita road and connects Iola and Moran. It is to be constructed of Portland cement concrete, 18 feet in width, for a distance of one mile.

The surveys have been completed and the plans are practically completed for this work. It is the intention to receive bids and award the contract early in the spring of 1919.

The approximate estimated cost of this work is $32,015.15. The approximate Federal aid is $4,802.27.

No. 19.—ALLEN COUNTY.

STATE STREET ROAD.

This project is located on what is locally known as the State Street Road and is on the route of the designated King of Trails Road. It extends from the present macadam road north of Iola to a point one-fourth mile from the county line. The length of the proposed improvement is 4.25 miles and the width 16 feet. One mile of this project will consist of the resurfacing of the present macadam road. 3.25 miles will consist of new construction.

Surveys have been made and plans are practically completed for this improvement. It is the intention to receive bids and award the contract early in the spring of 1919.

The approximate estimated cost of this work is $41,048.67. The approximate Federal aid to be received is $6,157.30.

No. 20.—JOHNSON COUNTY.

SANTA FE TRAIL ROAD.

This project is located on the Santa Fe Trail road and extends from the Wyandotte county line to Overland Park. The present road is a very badly worn and rutted water-bound macadam, and it is proposed to reconstruct this road by the addition of a wearing course of bituminous macadam, 18 feet in width, for a distance of six miles.

The surveys and plans for this work have not as yet been completed.

The approximate estimated cost of the proposed work is $69,033.32. The approximate Federal aid to be received is $10,355.

CLOUD COUNTY.

GLASCO-SIMPSON ROAD.

This project is on the Midland Trail Road and connects with Project No. 1 in Mitchell county. It extends from the Mitchell county line to Glasco.

The board of county commissioners of Cloud county applied for Federal aid on this project, but up to the present time have failed to submit final resolutions, so that the project statement has not as yet been submitted to the Federal government.

The approximate estimated cost of this work is $166,311.20. The approximate Federal aid is $24,946.68.

FINNEY COUNTY.

SANTA FE TRAIL ROAD.

This project is located on the route of the Old Santa Fe Trail, and extends from the east line of Finney county, near Pierceville, through Garden City to the Finney county line. It will be constructed of brick, 20 feet in width, for an approximate length of 28 miles.

The application for Federal aid has been filed with the State Highway Commission and has been allowed. No project agreement has been sent to the Office of Public Roads, due to the fact that the final resolution has not been submitted for this project.

An approximate estimate of the cost of this work is $1,039,-440.26. The approximate Federal aid is $154,410.94.

LEAVENWORTH-WYANDOTTE COUNTY.

KANSAS CITY, FORT-TO-FORT HIGHWAY.

This project is located partly within Leavenworth county and partly on the county line between the two counties. It is a portion of the road connecting Kansas City with Fort Riley and Fort Leavenworth. An application for Federal aid has been submitted by Leavenworth county and approved by the State Highway Commission. However, Wyandotte county has not submitted an application nor approved the benefit district petition, due to the fact that their present indebtedness prohibits them from issuing further securities against the county. The project agreement, therefore, cannot be executed

and some other steps must be taken to carry out the proposed work. The approximate length of this road is 8 miles and the proposed improvement is to consist of 18-foot wide Portland cement concrete road.

The estimated cost is $203,533 and the approximate allowance for Federal aid is $30,529.95.

RICE COUNTY.

NEW SANTA FE TRAIL CUT-OFF.

This project is on the connecting road or cut-off between the Old and New Santa Fe Trails. It begins at the city limits of Lyons and extends southwardly for a distance of 2.31 miles. The proposed improvement is to be constructed of Portland cement concrete or brick, 18 feet in width. Application for Federal aid has been received and approved by the State Highway Commission, but the project statement has not been submitted to the Office of Public Roads, on account of a discrepancy in rural post roads. As soon as petitions have been filed for the change in rural routes, the project statement will be filed.

The approximate estimated cost of a brick road on this location is $103,615.38, for which the Federal allowance would be approximately $15,542.31.

RICE COUNTY.

OLD SANTA FE TRAIL ROAD.

This project is along the route of the Old Santa Fe Trail, and extends from Lyons west for a distance of 5 miles. It is to be constructed of brick or Portland cement concrete, 18 feet in width. The application for Federal aid has been approved by the State Highway Commission, but the project statement has not been forwarded to the Office of Public Roads, due to the fact that there is a deficiency of rural post roads, which must be cared for by a petition for change in rural routes. The surveys have not been started up to the present time.

An approximate estimate of the cost of this work is $202,534.75 for a brick road. The approximate Federal aid is $30,380.21.

DOUGLAS COUNTY.

OLD SANTA FE TRAIL.

This project follows the route of the Old Santa Fe Trail from the east to the west line of Douglas county, passing through the city of Baldwin. It is 23.25 miles in length and is to be constructed of Portland-cement concrete 16 feet in width.

The final resolutions of the board of county commissioners and State Highway Commission have been passed, but the project has not yet been submitted to Washington. Since there is no demand for starting the construction at an early date, the preliminary inspection will not be made until some convenient date.

An approximate preliminary estimate of the project is $697,-500. The approximate Federal aid is $104,625.

RENO COUNTY.

NEW SANTA FE TRAIL CUT-OFF AND SANTA FE TRAIL ROAD NUMBER TWO.

This project begins at the west city limits of Hutchinson, at the end of what is known as Fourth avenue, and extends westwardly through Sylvia to the Stafford county line. The total length of the proposed road is 35 miles, and it is to be constructed of brick, 18 feet in width.

The application for Federal aid has been approved by the State Highway Commission. The project statement has not been submitted to Washington, owing to the fact that there are some deficiencies in rural mail routes which will require adjustment.

An approximate estimate of the cost of this work is $1,225,-000. The approximate Federal aid is $183,750.

ALLEN COUNTY.

HUMBOLDT-CHANUTE ROAD.

The road is locally known as the Humboldt-Chanute road, and is a part of the King of Trails road. It begins 3¼ miles north of the Allen-Neosho county line and extends southwardly to the county line. It is to be constructed of water-bound macadam or gravel and about one-half mile of concrete for a width of 20 feet and a length of 3.25 miles.

The approximate estimated cost of this work is $36,402.10. The approximate Federal aid is $5,460.32.

SEDGWICK COUNTY.

LAWRENCE AVENUE-MERIDIAN TRAIL ROAD.

This project is along the road locally known as South Lawrence avenue and on the route of the Meridian Trail.

The application for Federal aid has been submitted for 12.5 miles of 20-foot-wide brick road. Owing to irregularities in the petition filed with the board, it has been found necessary to recirculate the petition. As soon as the new petition is circulated and approved by the board the application will be filed with the government.

THE FIRST FEDERAL AID CONTRACT IN KANSAS.

An important date in the history of road building in Kansas is that of July 24, 1918, at which time bids were opened and the contract awarded for the first section of Federal aid road in the state, being that of the Golden Belt road, project No. 12, from Junction City to Fort Riley, in Geary county. The contract was awarded to M. R. Amerman, of Salina, for the gross sum of $45,073.12.

The county commissioners having found it practically impossible to maintain the old macadam road extending northeasterly from Junction City to the Republican river bridge at Fort Riley, appropriated from their general road fund sufficient funds to meet the federal allotment, and on February 4, 1918, requested the State Highway Commission to allow Federal aid for the improvement of this section of road.

On March 6 the State Highway Commission granted the request of Geary county and allowed Federal aid on the project. This action of the State Highway Commission was immediately followed by a final resolution of the county board on April 3, and on April 8 the State Highway Commission passed its final resolution, and the following day submitted the project statement to the United States Office of Public Roads for approval. May 24 the project was approved by the Secretary of Agriculture, and Federal aid was granted. The plans, specifications and estimates were approved by the state highway engineer on May 17, and on June 1 by the United States Secretary of Agriculture.

The work was advertised for letting and bids were received on June 26. Alternative bids were received for a two-course

Portland-cement concrete and a monolithic brick road, all cement to be furnished by the county. The accompanying tabulation will show a list of all bids received at this letting, together with the engineer's estimate for the work. It will be noted that many of the items were excessive, and owing to the provision in the general road law under which the funds for this construction were appropriated, no contract could be awarded above the engineer's estimates. The county board rejected all bids and ordered the estimate revised and a new letting to be held on July 24.

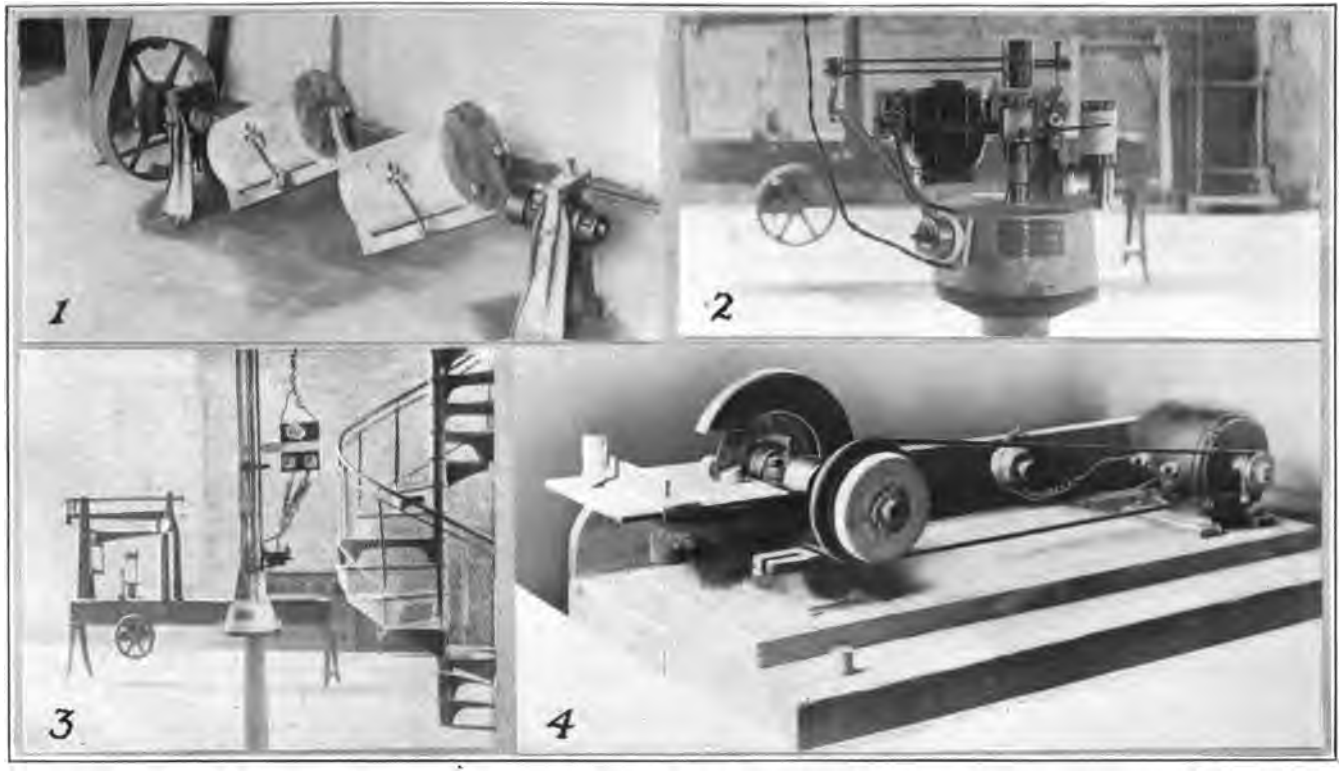
It was deemed necessary to revise the estimate, due to the new order raising railroad freight rates, and the prices of labor in the vicinity of Junction City having materially increased. A new letting was held on July 24, at which time bids were received for the proposed construction. At the second letting, on July 24, it was decided to allow the contractor to furnish all material, including cement; therefore, the bids received on that date are for all the construction and the furnishing of all materials.

Bids were received on the pavement for two alternative propositions. One was the construction of a reinforced concrete pavement of the two-course type throughout the entire length of the work. The other proposition was for the construction of a monolithic brick pavement from Station 0 plus 10.8 feet to Station 57, and the construction of a reinforced concrete pavement, two-course construction, from Station 57 to Station 59 plus 14 feet, making a total length of brick pavement of 5,689.2 feet and of concrete pavement of 214 feet. The monolithic brick pavement is to be constructed of 3-inch vertical fiber brick on a concrete base, varying in thickness from 3 inches at the side to 5¼ inches in the center. Between the base and the brick will be placed a 3/16-inch dry-mortar cushion. The pavement will be constructed according to the standard specifications of the Kansas Highway Commission for monolithic brick road, the brick being placed on the base before the concrete has reached its initial set.

The foundation for this pavement is exceptionally good, being placed on an old macadam road which has been scarified, reshaped and rerolled.

The reinforced concrete pavement will be constructed in two courses, the top being 2 inches in thickness and the base being

PLATE V.



MACHINERY FOR TESTING ROAD BUILDING MATERIALS.

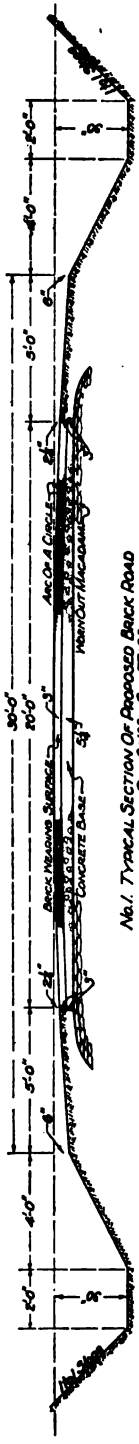
1—Deval Abrasion Machine (figure 1).
2—Page Impact Machine for Cementation (figure 6).
3—Page Impact Machine for Toughness (figure 5).
4—Diamond Saw.

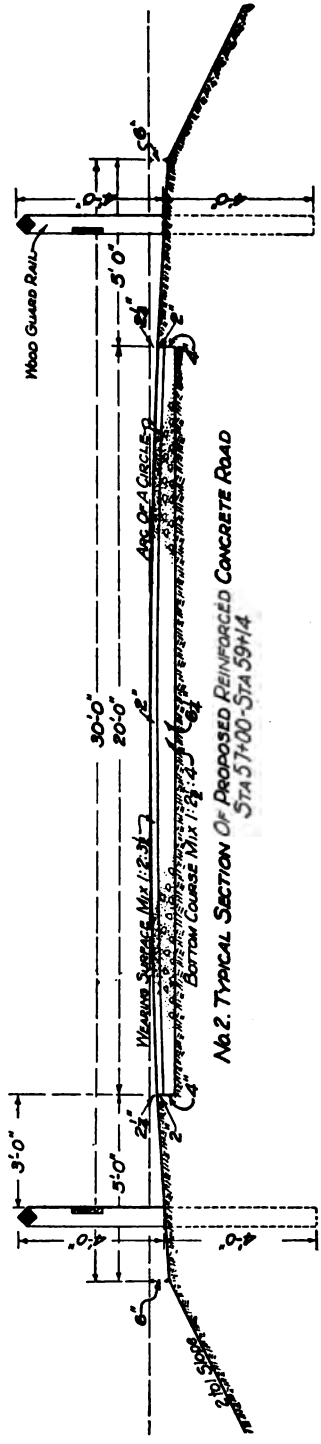
PLATE VI.

MACHINERY FOR TESTING ROAD BUILDING MATERIALS.

5—Briquette Machine.
6—Drill Press with Diamond Core Drill (figure 3).
7—Dorry Hardness Machine (figure 2).
8—Ball Mill (figure 7).

TYPICAL SECTIONS OF ROAD CONSTRUCTION IN CONNECTION WITH THE GEARY COUNTY ROAD PROJECT No. 12.





4 inches at the side and 6¼ inches at the center. The reinforcement will be composed of a fabric or mesh reinforcing metal having an effective weight of 45 pounds for each 100 square feet of pavement.

The accompanying cut No. 1 shows the section of monolithic brick pavement and cut No. 2 shows the section of reinforced concrete pavement.

The reason for not using the same type throughout is due to the fact that the north 214 feet is constructed on a high fill that must be widened in order to give the proper width, and therefore requiring reinforcement in order to prevent settlement cracks.

The agreement was entered into on the 24th day of July, the contractor filed his bond on August 5, and the work was started during the following week.

Federal aid will be given for the construction of the pavement and shoulders, the earth work, grubbing and culverts being paid for entirely by the county.

This road is one of considerable military importance, carrying a heavy traffic between the military cantonments of Fort Riley and Camp Funston and the railroad stations at Junction City. A traffic census was taken by the military engineers at the Republican river bridge, which is now under construction, and it was found that 4,000 vehicles followed this road in one day, going in one direction only, which indicates that there will be somewhere near 8,000 vehicles per day going in both directions.

The first pavement was laid on October 29, 1918, and on December 6, 1918, the brick pavement had been completed from Station 0 + 10.8′ to Station 57 + 00′. The section of concrete pavement will not be completed until the spring of 1919, due to the fact that the bridge over the Republican river has not been completed. The road extends over the back fill to this bridge, and until the bridge is completed the section of pavement cannot be laid.

The earth work and shoulders have been completed from Station 0 + 10.8′ to Station 51 + 00′.

FILING SYSTEM.

On account of the large volume of correspondence, the number of lines of work which are handled by the State Highway Commission and the necessity for all data and correspondence to be carefully preserved and readily accessible for reference, the filing system is an important feature of the office work.

Vertical files are used. A uniform system of numbering the counties, according to their alphabetical order, has been adopted and all filing is done by number. The correspondence is filed in chronological order and the same is secured in the file pockets by paper fasteners.

The general divisions of the filing system are as follows:

COUNTY ROAD CORRESPONDENCE.—In this file is kept all the correspondence pertaining to the roads in the various counties, except those constructed by Federal aid or upon which applications for Federal aid have been submitted.

COUNTY BRIDGE CORRESPONDENCE.—In this file is kept all correspondence relating to the bridges in the various counties.

FEDERAL AID.—In this file is kept the correspondence and general data pertaining to the roads and bridges upon which Federal aid has been requested. This is the only file in which the county number is not used. The projects are kept according to the project number assigned by the Government at the time the project statement was submitted. Under each project number is kept at least two vertical filing pockets, one for the correspondence and others for such data as the estimate sheets and project statements.

RAILROAD CROSSING ELIMINATION.—In this file is kept all data and correspondence pertaining to railroad crossings which have been ordered eliminated by the State Highway Commission. The different crossings in the various counties are kept separate, beginning with the order of the Commission and followed by the correspondence and further orders, if any, concerning the elimination.

GENERAL CORRESPONDENCE.—In this file is kept general correspondence with the counties, members of the State Highway Commission, other states, various departments of the state and United States, material companies, various general and

engineering publications, engineering schools, road associations, engineering societies, testing laboratories, etc.

ROAD PICTURES.—The engineers often find it of value to take pictures on their inspection trips and these are stamped on the back with a rubber stamp, showing the date, location, by whom taken and other data. These pictures are filed with the film attached.

BRIDGE PICTURES.—A file for bridge pictures is kept in the same manner as for road pictures.

COUNTY ROAD MAPS.—A large drawer file is used for filing the approved maps of the various counties.

BRIDGE PLANS, ESTIMATING DATA AND INSPECTIONS REPORTS.—A file is kept in the drafting room for all township and county bridge and culvert work. This file has the uniform system of numbering the counties and, in addition, the townships are shown as subdivisions, the numbers of the townships being given according to alphabetical order. In this file is kept bridge plans and estimates checked and approved for the different townships and counties and such data as calculation sheets, inspection reports and reports of lettings.

STANDARD PLANS.—Files for standard plans are kept according to serial number for pipe culverts, abutments, box culverts, slab bridges, through girders, deck girders, etc. Original tracings are preserved in these files.

CIRCULAR LETTERS AND GENERAL INFORMATION.—A file is kept for all circular matter sent from the office in mimeograph or printed form.

REPORTS OF COUNTY AND TOWNSHIP OFFICIALS ON STANDARD FORMS.—The reports of the county and township officials furnished to the Commission on standard forms are filed in binders made for that purpose.

CARD INDEXING.—A very complete card index is kept for the bridge work, which cards are numbered to correspond with the bridge data file and shows the name of the county, township, description of structure, over what stream, date of inspection, date of approval of plans, data regarding letting of contract and other information. Such a card system has not been worked out for the road work, but is under consideration and in all probability will be in use in the near future.

A card index is kept for reference to the railroad crossings eliminated by the Commission. The name of the county, the railroad company, description of the location of the crossing, date of order and method of elimination are given on the cards.

The fiscal year for the state begins on July 1st, but as that is in the middle of the construction season, it is better for the engineering work to begin the fiscal year on January 1st, at which time the files are transferred and new ones made.

PHOTOGRAPHIC EQUIPMENT.

Shortly after the organization of the Highway Commission, it was decided that photographic records should be kept of important construction features. For this purpose, three 3¼ x 5½ kodaks were purchased and are now used by the different members of the organization.

It has been found in other highway commissions that photographs of work previous to construction and after construction are very important records, and many times failures and good features of construction can be brought out by photographs better than by a written report.

Since the organization of the Commission, road photographs have been taken to the number of 296 and bridge photographs 223. These pictures were taken in 62 different counties and the majority of the cuts in this report are taken from these pictures.

PICTURES ON FILE.

	Roads.	*Bridges.*		*Roads.*	*Bridges.*
Allen	9	4	Ellsworth	..	2
Anderson	6	6	Finney	2	..
Atchison	22	4	Ford	..	1
Barton	..	7	Franklin	4	..
Bourbon	7	1	Geary	54	..
Brown	..	2	Gray	..	10
Butler	3	2	Greeley	7	..
Chase	11	9	Greenwood	3	6
Chautauqua	7	5	Hamilton	..	1
Cherokee	3	6	Harper	3	..
Clay	1	2	Harvey	..	1
Cloud	4	2	Jefferson	3	13
Crawford	..	3	Johnson	4	..
Decatur	1	1	Kearny	5	1
Dickinson	..	4	Kiowa	2	..
Doniphan	..	3	Labette	2	4
Douglas	1	5	Lyon	4	4
Elk	5	5	Marion	..	7
Ellis	..	1	Miami	1	2

	Roads.	Bridges.		Roads.	Bridges.
Mitchell	..	2	Riley	4	..
Montgomery	4	..	Rooks	..	4
Morris	4	..	Russell	1	3
Neosho	5	..	Saline	1	3
Norton	..	2	Sedgwick	7	2
Osage	..	5	Shawnee	11	33
Ottawa	..	2	Sheridan	..	1
Pawnee	..	6	Stafford	..	1
Phillips	..	1	Washington	9	11
Pottawatomie	12	2	Wilson	15	2
Rawlins	..	2	Wyandotte	27	3
Reno	1	..	General	2	1
Rice	..	13	Miscellaneous	17	..

ELIMINATION OF RAILROAD CROSSINGS.

The general public does not realize the danger at railroad grade crossings until it is forcibly presented to them by an accident among their neighbors or circle of friends, but the daily papers are continually calling our attention to this fact by reporting accidents and deaths.

The 1917 legislature provided the machinery whereby a large number of these railroad grade crossings could be entirely eliminated for travel, and many others could be elimininated for the bulk of the travel, through the agencies of the county engineer, board of county commissioners and State Highway Commission. The law provided that when laying out their county road system, the county engineer and board of county commissioners should put forth every effort to eliminate railroad grade crossings by subways, viaducts or by paralleling the railroad and avoiding the crossing. It is further directed that the state highway engineer, when approving the county road map, should require the elimination of all possible railroad grade crossings and gave the authority for action into the hands of the State Highway Commission.

It is further provided that upon complaint of the county officials or township officials, as the case may be, the State Highway Commission may order the elimination of the railroad grade crossings or protection by signal devices or other improvements.

Many orders have been made to protect crossings where they could not be eliminated or where the cost of separating the grades was too expensive for the traffic requirements. Many of the crossing eliminations ordered have not been com-

pleted, due to the fact that the U. S. Railroad Administration has repeatedly refused to go ahead with this work, owing to the expense entailed by the railroad company. The Commission has felt that the attitude of the railroad administration should be altered, but up to the time of this report, no change has been made. The Commission plans to continue its fight on the railroad grade crossing and hopes that within a few years the bulk of crossings of this sort will either have been eliminated or properly safeguarded. The crossings ordered eliminated are as follows:

ANDERSON COUNTY.

One crossing on the Missouri Pacific railroad between sections 19 and 20, township 19, range 21, and one crossing on the north line of section 20, township 19, range 21. This latter crossing is on the Anderson-Franklin county line and the two crossings are to be eliminated by paralleling the Missouri Pacific track along the east side.

One Missouri Pacific crossing on the north side of section 30, township 19, range 20, and one crossing near the center of section 2, township 20, range 20. These two crossings are to be eliminated by paralleling the Missouri Pacific track along the east side.

Two railroad grade crossings on the Missouri Pacific railroad, one on the west line of section 8, township 20, range 18, and one in said section 8 near the west line. These two crossings to be eliminated by paralleling the track along the north side.

BARBER COUNTY.

Eliminate two railroad grade crossings on the Atchison, Topeka & Santa Fe railroad, one on the west line of section 20, township 31 south, range 14 west, and one near the center of said section 20, both crossings to be eliminated from the county road system by relocating the road to parallel along the north side of the railroad company's right of way in accordance with this order, to be performed after the close of the war.

BARTON COUNTY.

Eliminate from the county road system two Missouri Pacific railroad grade crossings west of Hoisington, one near the southwest corner of section 31, township 17 south, range 13

west, and one on the south line of section 35, township 17 south, range 14 west. Said crossings to be eliminated by relocating the road to parallel along the north side of the railroad right of way.

Eliminate two Missouri Pacific railroad grade crossings from the county road system east of Red Wing, one on the south line of section 33, township 17 south, range 12 west, and one near the southwest corner of section 35, township 17 south, range 12 west. Crossings to be eliminated by relocating the highway to parallel along the north side of the railroad right of way.

Protect the railroad grade crossing over the Missouri Pacific railroad east of Claflin at the southeast corner of section 35, township 17 south, range 11 west, by an electric signal device consisting of a bell and semaphore. The Commission will deem the crossing satisfactorily protected and will waive the placing of this signal device, provided that the spoil banks on the intersecting corners be entirely removed to give a clear view of the crossing when approaching it from the highway in any direction.

BROWN COUNTY.

Two Chicago, Rock Island & Pacific crossings at the northeast corner of section 29, township 2, range 15, to be eliminated by paralleling the south side of the railroad right of way.

CHASE COUNTY.

Eliminate two Atchison, Topeka & Santa Fe railroad grade crossings near the northeast corner of section 10, township 19 south, range 7 east, by paralleling along the southwest side of the railroad track.

CHAUTAUQUA COUNTY.

Two Atchison, Topeka & Santa Fe railroad grade crossings to be eliminated from the county road system at a point near the northwest corner of section 18, township 35 south, range 21 east. Crossings to be eliminated by paralleling the railroad right of way on the southeast side of the track.

Two Atchison, Topeka & Santa Fe railroad grade crossings to be eliminated at a point near the section line between sections 14 and 15, township 35 south, range 10 east, by paralleling along the north side of the railroad company's right of way.

CLAY COUNTY.

Eliminate from the county road two Union Pacific and two Chicago, Rock Island & Pacific railroad grade crossings south of Morganville, two on the west line of section 10, township 7 south, range 2 east, and two on the south line of said section 10, said crossings to be eliminated by relocating the highway to parallel along the northeast side of the Chicago, Rock Island & Pacific railroad right of way.

COFFEY COUNTY.

Two Missouri, Kansas & Texas railroad crossings, one near the southeast corner and one near the center of section 14, township 22, range 15. These two crossings to be eliminated by paralleling the track along the west side.

COWLEY COUNTY.

Two railroad grade crossings between the county road and the Atchison, Topeka & Santa Fe railroad southwest of Grand Summit, one on the north side and one on the west side of section 17, township 31 south, range 8 east. Both crossings to be eliminated from the county road system by paralleling along the southeast side of the railroad company's right of way.

Two Atchison, Topeka & Santa Fe railroad grade crossings northeast of Winfield, near the northwest corner of section 11, township 32 south, range 4 east, to be eliminated from the county road system by paralleling along the southeast side of the railroad company's right of way.

Two St. Louis & San Francisco railroad grade crossings north of Floral, near the northwest corner of section 17, township 31 south, range 5 east, to be eliminated from the county road system by paralleling along the southeast side of the railroad company's right of way.

DECATUR COUNTY.

Protection of Chicago, Burlington & Quincy railroad grade crossing on the line between sections 5 and 8, township 3, range 28, by removal of spoil banks and sufficient cut to give a clear view of the track from the highway for a distance of 150 feet on either side. Earth removed from these spoil banks to be placed in the highway to reduce the grade of the approaches to the track. The cost of such work to be apportioned between the railroad company and the county as deemed equitable.

DICKINSON COUNTY.

Two Missouri Pacific railroad grade crossings on the Bee Line east of Carlton, one between sections 1 and 12 and one between sections 2 and 11, all in township 16, range 1. These two crossings are to be eliminated from the county road system by paralleling the south side of the railroad company's right of way.

Two Chicago, Rock Island & Pacific railroad grade crossings south of Woodbine, one near the northeast corner of section 10, township 15, range 4, and one on the south side of said section 10. These two crossings are to be eliminated from the county road system by paralleling the west side of the railroad company's right of way.

DONIPHAN COUNTY.

Two crossings on the St. Joseph & Grand Island railroad, one about one mile east of Troy, in section 16, and one about two miles east of Troy, in section 15. These two crossings are to be eliminated by paralleling the Grand Island railroad along the north side of the track.

One Chicago, Rock Island & Pacific railroad grade crossing, about two and three-fourths miles east of Troy, near the section line between sections 14 and 15. This crossing to be eliminated by putting in an overhead crossing just east of the present crossing.

DOUGLAS COUNTY.

One Union Pacific railroad crossing on the north side of section 2, township 12, range 19.

Two Union Pacific railroad crossings near the northeast corner of section 12, township 12, range 19.

One Union Pacific railroad crossing on the north line of section 18, township 12, range 20.

These four Union Pacific railroad crossings are to be eliminated by paralleling along the north and east sides of the said railroad company's right of way near the northeast corner of the northwest quarter of section 18, township 12, range 20, to the county line near the northwest corner of the northeast quarter of section 2, township 12, range 19.

FRANKLIN COUNTY.

One Atchison, Topeka & Santa Fe railroad crossing on the north line of section 10, township 18, range 18, and one cross-

ing near the northwest corner of said section 10 to be eliminated by paralleling the railroad track along the south side.

Two Atchison, Topeka & Santa Fe railroad grade crossings, one on the north and one on the west side of section 2, township 19, range 17. These two crossings to be eliminated by paralleling the railroad track along the south side.

GREENWOOD COUNTY.

Order eliminating two Atchison, Topeka & Santa Fe railroad grade crossings, one in the northeast quarter of section 8, township 25 south, range 13 east, and one located on the Main street of Quincy, Kan., in the southwest quarter of section 9, township 25 south, range 13 east; both crossings to be eliminated from the county road system by paralleling along the east side of the railroad company's right of way.

Two Atchison, Topeka & Santa Fe railroad crossings in section 13, township 23 south, range 12 east, by continuing the road north near the east line of said section 13, to intersect with the present laid-out road on the north line of said section 13, then following the present laid-out road along the section line to intersect with the county road running north.

JACKSON COUNTY.

Two Missouri Pacific railroad crossings on the White Way, one on the east line and the other near the northwest corner of section 17, township 5 south, range 15 east. These two crossings are to be eliminated by paralleling the south side of the railroad track.

Two Kansas City Northwestern railroad crossings on the Corn Belt, one on the south line and one on the west line of section 30, township 7 south, range 16 east. These two crossings are to be eliminated by paralleling the railroad track along the north side.

JEWELL COUNTY.

Two Missouri Pacific railroad grade crossings to be eliminated from the county road system, one on the line between sections 35 and 36, township 3 south, range 8 west, and the other on the line between sections 1 and 12, township 4 south, range 8 west; both crossings to be eliminated by paralleling along the east side of the railroad right of way.

JOHNSON COUNTY.

One St. Louis & San Francisco railroad crossing, known as the Breyfogle crossing, one mile north and one mile east of Lenexa, between sections 26 and 35, township 12, range 24. This crossing to be eliminated by the construction of an overhead crossing.

One Missouri Pacific railroad crossing at Stillwell, on the section line between sections 5 and 8, township 15, range 25. This crossing to be protected by the installation of a suitable signal.

KIOWA COUNTY.

Protect the railroad grade crossing two miles west of Greensburg, Kiowa county, between sections 13 and 18, township 28 south, ranges 18 and 19 west. Said crossings to be protected by removing more earth at the cut, earth to be removed in accordance with sketch prepared by the county engineer. The work to be performed in accordance with previous order of the Commission removing spoil banks, which did not prove sufficient to protect the crossing. Sufficient earth must be removed in accordance with this order to give a good, clear view of the crossing when approaching from any direction.

LYON COUNTY.

Two Missouri, Kansas & Texas railroad crossings, one on the east side and one on the north side of section 33, township 17, range 10. These two crossings are to be eliminated by paralleling the south side of the track.

Two Missouri, Kansas & Texas railroad crossings, one on the east side and one on the north side of section 29, township 17, range 10. These two crossings are to be eliminated by paralleling the south side of the track.

Two Missouri, Kansas & Texas railroad crossings, one on the south side and one on the west side of section 18, township 17, range 10.

All of these crossings are located between Americus and Comiskey, within a distance of about four and one-half miles.

MARION COUNTY.

Two crossings on the Chicago, Rock Island & Pacific railroad, one on the north and one on the west side of section 30, township 17, range 3, these two crossings to be eliminated by paralleling the south side of the track.

MIAMI COUNTY.

One St. Louis & San Francisco railroad crossing in the southwest quarter of section 9, township 17, range 23 east. This crossing to be protected by some suitable signal devices.

One Missouri, Kansas & Texas railroad crossing on the line between sections 30 and 31, township 17, range 22 east. This crossing to be protected by some suitable signal device.

MONTGOMERY COUNTY.

Two Missouri Pacific railroad crossings, one on the north side and one on the west side of section 3, township 34, range 14. These two crossings to be eliminated by paralleling the south side of the railroad track.

One Union Traction Company crossing south of Independence Country Club at stop 32. This crossing to be protected by some suitable signal device.

MORRIS COUNTY.

Two Chicago, Rock Island & Pacific railroad grade crossings, one on the north line and one on the west line of section 32, township 15 south, range 5 east, to be eliminated by paralleling along the southeast side of the railroad right of way.

One Chicago, Rock Island & Pacific railroad grade crossing, near the common corner between sections 13, 14, 23 and 24, township 15 south, range 5 east, about one-half mile east of Latimer, to be eliminated by the separation of grades, a subway to be constructed for the highway to run under the railroad tracks.

Two Missouri, Kansas & Texas railroad grade crossings, one on the east line of section 5, township 14 south, range 6 east, and one in the southeast quarter of said section 5, to be eliminated from the county road system by a relocation of the highway to parallel along the southeast side of the railroad right of way.

NEMAHA COUNTY.

Two St. Joseph & Grand Island railroad grade crossings on the Rock Island Highway between Seneca and Oneida, one on the north side of section 25, township 2, range 12 east, and one near the northwest corner of said section 25. These two crossings are to be eliminated from the county road system by paralleling the north side of the railroad company's right of way.

Two Kansas City & Northwestern railroad grade crossings north of Kelly, near the southwest corner of section 30, township 3, range 13. These two crossings are to be eliminated from the county road system by paralleling the north side of the railroad company's right of way.

POTTAWATOMIE COUNTY.

One Union Pacific railroad crossing one and one-half miles east of Belvue, near the southwest corner of section 36, township 9, range 12. This crossing to be eliminated by paralleling the Union Pacific track along the north side into Belvue.

Three Union Pacific railroad crossings west of Belvue, one located near the northwest corner of section 4, township 10, range 11, one in section 5, township 10, range 11, and one between sections 5 and 6, township 10, range 11. These three crossings to be eliminated by relocating the road and by paralleling the Union Pacific track along the north side.

Two Leavenworth, Kansas & Western railroad crossings, one on the east side and one on the south side of section 1, township 7, range 8. These two crossings to be eliminated by paralleling the railroad track along the north side.

Two Leavenworth, Kansas & Western railroad crossings, west of Fostoria, one on the north side of section 22, township 7, range 8, and one on the west side of section 21, township 7, range 8. These two crossings are to be eliminated by paralleling the track along the south side or by locating a road on the half-section line east and west through sections 21 and 22.

RENO COUNTY.

Two Atchison, Topeka & Santa Fe railroad grade crossings on the new Santa Fe Trail east of Sylvia, one near the northeast corner of section 13, township 24, range 10, and one on the west line of section 14, township 24, range 10. These crossings are to be eliminated from the county road system by paralleling the south side of the railroad company's right of way.

REPUBLIC COUNTY.

One Chicago, Rock Island & Pacific railroad grade crossing between sections 33 and 34, township 2, range 2, located on the county road, to be protected by removing the spoil banks so as to give a clear view of approaching trains.

RICE COUNTY.

Two St. Louis & San Francisco railroad crossings, one on the east and one on the north side of section 4, township 21, range 7. These crossings are to be eliminated by paralleling the track along the south side.

RILEY COUNTY.

One Manhattan City & Interurban Railroad Company grade crossing near the northwest corner of section 26, township 10, range 7. One Manhattan City & Interurban grade crossing near the northeast corner of section 27, township 10, range 7. These two crossings are to be eliminated by paralleling along the south side of the Manhattan City & Interurban right of way.

Two Manhattan City & Interurban Railroad Company grade crossings in section 28, township 10, range 7. These two crossings are to be eliminated by paralleling along the south side of the Manhattan City & Interurban right of way.

Two Manhattan City & Interurban Railroad Company grade crossings, one in section 29, township 10, range 7, and one on the west line of said section 29. These two crossings are to be eliminated by paralleling along the south side of the Manhattan City & Interurban right of way.

One Union Pacific railroad grade crossing in section 5, township 11, range 7, and one Union Pacific grade crossing between sections 6 and 7, township 11, range 7. These two crossings are to be eliminated by paralleling along the west side of the Union Pacific track or by paralleling along the south side of the right of way of the Manhattan City & Interurban right of way through section 31, township 10, range 7, and section 6, township 11, range 7.

ROOKS COUNTY.

One Union Pacific railroad grade crossing on the west line of section 27, township 9 south, range 20 west, to be eliminated by paralleling along the northeast side of the railroad right of way.

RUSSELL COUNTY.

Two Union Pacific railroad crossings west of Paradise, one crossing on the south line of section 1, township 11 south, range 15 west, and one crossing on the west line of said section 1, to be eliminated by paralleling along the northeast side of the Union Pacific right of way.

Two Union Pacific railroad crossings southeast of Luray, one on the west line of section 15, township 11 south, range 12 west, and one on the south line of the north half of said section 15, to be eliminated by paralleling along the northeast side of the railroad right of way.

Two Union Pacific railroad crossings west of Lucas, one on the south line and one on the west line of section 28, township 11 south, range 11 west, to be eliminated by paralleling along the northeast side of the railroad right of way.

SALINE COUNTY.

One Union Pacific railroad crossing between sections 25 and 26, township 16, range 3. This crossing is to be eliminated by paralleling along the west side of the Union Pacific right of way through said section 26.

Two Union Pacific railroad crossings near the southeast corner of section 34, township 16, range 3. These two crossings are to be eliminated by paralleling along the west side of the Union Pacific right of way.

One Missouri Pacific railroad crossing between sections 25 and 26, township 16, range 3. This crossing is to be eliminated by paralleling along the west side of the Union Pacific right of way through said section 26.

Two Missouri Pacific railroad crossings, one on the east side and one on the south side of section 34, township 15, range 4. These two crossings are to be eliminated by paralleling along the west side of the right of way of the Missouri Pacific through said section 34.

Two Missouri Pacific railroad crossings near the southeast corner of section 34, township 16, range 3. These two crossings are to be eliminated by paralleling along the west side of the Union Pacific right of way through said section 34.

SHAWNEE COUNTY.

Two Union Pacific railroad crossings west of Silver Lake on the Golden Belt road, one in section 9, township 11 south, range 14 east, and one on the line between sections 7 and 8, township 11 south, range 14 east, to be eliminated by paralleling along the south side of the railroad right of way.

Two Union Pacific railroad crossings northeast of Topeka on the Golden Belt road, one in lot 5 of the Kaw Half-breed reservation and one in lot 7 of the Kaw Half-breed reservation, to be eliminated by paralleling along the north side of the railroad right of way.

PLATE VII.

THE FIRST FEDERAL AID ROAD IN KANSAS.

Brick Road in Geary County.

PLATE VIII.

THE FIRST FEDERAL AID ROAD IN KANSAS.

Brick Road in Geary County.

SHERIDAN COUNTY.

One Chicago, Rock Island & Pacific railroad crossing on the north side of section 6, township 7, range 30, to be eliminated by paralleling the south side of the track.

Two Chicago, Rock Island & Pacific railroad crossings, one on the north side and one on the west side of section 10, township 6, range 29. These two crossings to be eliminated by paralleling the south side of the track.

One Union Pacific railroad crossing between section 17 and 20, township 8, range 30, by paralleling the track along the north side.

SMITH COUNTY.

One crossing on the Chicago, Rock Island & Pacific railroad, near the southwest corner of section 21, township 3 south, range 3 west, to be eliminated from the county road system by paralleling along the north side of the railroad track into Smith Center.

SUMNER COUNTY.

Two Missouri Pacific railroad grade crossings at Whitman, near the northeast corner of section 27, township 32, range 2. These two crossings are to be eliminated from the county road system by paralleling the south side of the railroad company's right of way.

Two Chicago, Rock Island & Pacific railroad grade crossings south of Peck, on the Meridian road, one on the north line and one on the west line of section 13, township 30, range 1. These two crossings are to be eliminated from the county road system by paralleling the east side of the railroad company's right of way.

One railroad grade crossing on the line between sections 16 and 17, township 30 south, range 4 west, east of Milton, to be protected by the establishment of an electric signal device composed of a bell and semaphore, which will operate when trains are approaching for a distance of 2,000 feet on either side of the crossing; also to remove the spoil banks to give a clear view from the highway.

Protect the railroad crossing over the Missouri Pacific railroad track at Anson, Kan., by removing the spoil banks to the original ground surface, in accordance with the direction of the county engineer, and establish an electric signal device consist-

ing of a bell and semaphore to warn the public of approaching trains when within 1,000 feet of the railroad crossing.

WOODSON COUNTY.

Eliminate two Missouri Pacific railroad grade crossings near the northwest corner of section 16, township 25 south, range 15 east, from the county road system by relocating the road so as to parallel along the southeast side of the railroad right of way, and relocating the county road so as to follow along the east and south sides of section 17, township 25 south, range 15 east.

Eliminate from the county road system two Missouri Pacific railroad grade crossings, one on the north line of section 33, township 25 south, range 14 east, and one on the west side of said section 33, both crossings to be eliminated from the county road system by relocating the road so as to parallel along the south side of the railroad company's right of way.

Eliminate two Missouri Pacific railroad grade crossings, one on the north line of section 6, township 26 south, range 14 east, and one on the west line of said section 6, both crossings to be eliminated from the county road system by paralleling along the south side of the railroad company's right of way.

WYANDOTTE COUNTY.

One Atchison, Topeka & Santa Fe railroad grade crossing on the Fort to Fort road, located two miles west of Piper, on the west line of section 30, township 10, range 23. This crossing is to be eliminated from the county road system by constructing a subway.

Three Missouri Pacific railroad grade crossings, one east and two west of Nearman, one located in section 24, township 10, range 24, and two in section 23, township 10, range 24. These three crossings are to be eliminated from the county road system by paralleling the south side of the railroad company's right of way.

ROAD SCHOOL FOR COUNTY ENGINEERS.

The Commission coöperated with the Kansas State Agricultural College, at Manhattan, in the holding a road school for county engineers at Manhattan, from February 18 to 22, 1918.

This school was designed for the instruction of county engineers, county commissioners, township officials and any others who were sufficiently interested in road affairs to attend.

The faculty of the Kansas State Agricultural College, together with the members of the State Highway Commission organization, participated in this program. In addition, Mr. T. J. Donaghey, chief inspector, Wisconsin Highway Commission, presented an interesting lecture on the "Construction and Maintenance of Gravel Roads." Mr. R. L. Bell, division engineer of the Illinois State Highway Department, of Paris, Ill., gave a very interesting lecture on the "Construction and Maintenance of Brick Roads." Papers and lectures on technical and practical road construction were so designed as to allow for a discussion following each topic. In the main, county engineers were assigned to lead the discussions, but it was understood that any one desiring to ask questions or to discuss a subject would be allowed sufficient time after the persons designated to lead the discussion had completed their portion of the program. The program follows:

MONDAY, FEBRUARY 18.

2:30 O'Clock, P. M.

Address ..... Dean J. T. Willard
Acting President, Kansas State Agricultural College.

Address ..... A. A. Potter
Dean of the Division of Engineering, Kansas State Agricultural College.

Address ..... W. S. Gearhart
State Highway Engineer, Topeka, Kan.

7:30 O'Clock P. M.

The Fort to Fort Road ..... J. Frank Smith
President, Kansas Good Roads Association.

Power Development in the United States During the Past Twelve Years ..... Dean A. A. Potter

Manhattan Pavements ..... Arthur Rhodes
City Engineer.

TUESDAY, FEBRUARY 19.

9:00 O'Clock A. M.

Exhibit of Tapes and Levels, and Discussion of their Uses... M. W. Furr
Department of Civil Engineering, Kansas State Agricultural College.

General Discussion.

10:30 O'CLOCK A. M.

Exhibits of Transits and Discussion of their Uses.....F. F. Frazier
Assistant Professor, Department of Civil Engineering, Kansas State Agricultural College.

General Discussion.

1:30 O'CLOCK P. M.

Road Surveys .....H. A. Marshall
Assistant Road Engineer, Kansas State Highway Commission.

Discussion: C. M. Cooper, Cherokee; W. B. Fox, Crawford; R. D. Coleman, Atchison.

3:00 O'CLOCK P. M.

Road Plans and Estimates.....M. W. Watson
Road Engineer, Kansas State Highway Commission, Topeka.

Discussion: H. A. Rowland, McPherson; W. H. Cost, Salina; Ed F. Loveless, Marion.

7:30 O'CLOCK P. M.

Address .....Representative S. A. Bardwell
Manhattan.

Kansas Road and Bridge Laws.....S. N. Hawkes
Topeka.

WEDNESDAY, FEBRUARY 20.

9:00 O'CLOCK A. M.

The Organization and Equipment for County and Township Road Work.....I. E. Taylor
County Engineer, Pottawatomie County.

Discussion: C. M. Morrow, Coffey; P. J. Ruckel, Finney, Haskell; G. I. Voyles, Phillips.

10:30 O'CLOCK A. M.

Design and Specification of Roads and Pavements.....M. W. Watson

Discussion: H. K. Hibbard, Montgomery; C. C. Jones, Wabaunsee, Osage; E. F. Miltner, Anderson.

1:30 O'CLOCK P. M.

Culvert Design and Construction.....C. H. Scholer
Assistant Bridge Engineer, Kansas State Highway Commission, Topeka.

Discussion: R. F. Gallup, Marshall; W. S. Henderson, Washington; A. E. Askins, Kiowa.

3:00 O'CLOCK P. M.

Bridge Design and Construction.....F. W. Epps
Bridge Engineer, Kansas State Highway Commission.

Discussion: W. J. King, Labette; O. T. Reese, Clark, Comanche; Sam Ainsworth, Rice.

7:30 O'CLOCK P. M.

The County Engineer and His Relation to the Public.....C. C. Jones
Burlingame.

Technical Publications of Value to County Engineers.....L. E. Conrad
Professor of Civil Engineering, Kansas State Agricultural College.

The Publicity Side of Highway Work.....W. C. Markham
Secretary, State Highway Commission.

THURSDAY, FEBRUARY 21.

9:00 O'CLOCK A. M.

Stone and Brick Sampling and Testing—with Laboratory Demonstrations .....W. B. Wendt
Assistant Professor of Applied Mechanics, Kansas State Agricultural College.

10:30 O'CLOCK A. M.

Construction and Maintenance of Earth Roads.....H. S. McFadden
County Engineer, Wilson county.

Discussion: T. J. Schall, Ford; Frank Petefish, Scott, Wichita, Greeley; W. S. Ruggles, Lyons.

THURSDAY, FEBRUARY 21.

1:30 O'CLOCK P. M.

Construction and Maintenance of Macadam Roads.....W. S. Gearhart

Discussion: W. B. Harris, Reno; H. S. McFadden, Wilson; C. F. Osborne, Elk, Chautauqua.

3:00 O'CLOCK P. M.

Construction and Maintenance of Gravel Roads.....T. J. Donaghey
Chief Inspector, Wisconsin Highway Commission.

Discussion: O. K. Williamson, Wyandotte; R. W. Toles, Bourbon, C. G. Payne, Johnson.

7:30 O'CLOCK P. M.

Construction and Maintenance of Concrete Roads.....J. B. Marcellus
Irrigation and Drainage Engineer, Division of College Extension, Kansas State Agricultural College.

General Discussion.

The Uniform System of Highway Accounting.....M. W. Watson

Discussion: A. J. Francis, Russell; H. M. Noel, Cloud; H. M. Fearing, Jewell.

FRIDAY, FEBRUARY 22.

9:00 O'CLOCK A. M.

Sampling and Testing of Cement and Bituminous Materials, W. B. Wendt

Discussion: M. W. Watson.

10:30 O'CLOCK A. M.

Construction and Maintenance of Brick Roads.....R. L. Bell
Division Engineer, Illinois State Highway Commission, Paris, Ill.

General Discussion.

This school was attended by 46 county engineers, representing 50 counties in the state, also by the engineering students of the Kansas State Agricultural College and a large number of other persons interested in road improvement, and it was pronounced by all present to be very instructive and of service to the county engineers.

It is the intention of the Commission to hold such a school once each year at a place to be designated as most convenient for all concerned.

UNITED STATES HIGHWAYS COUNCIL.

On May 27, 1918, an organization was formed at Washington, composed of the Secretary of Agriculture, the Secretary of War, the Director General of Railroads, the Fuel Administrator and the Chairman of the War Industries Board. The purpose of this organization was for the handling of street and highway problems during the war.

It was found necessary to conserve the interests of the country and see that no materials were dissipated, as there were certain materials necessary for war purposes before they could be used by the several states. They found it necessary to restrict street and highway projects to those most essential for carrying on traffic for war purposes—to conserve money, transportation, labor, fuel, and all materials necessary for public work.

To this end the State Highway Commission was instructed to take charge of the work for the state of Kansas and pass upon all applications from both counties and cities, not only as to materials used, but also for the privileges of issuing bonds for public improvements. This entailed a great deal of additional labor by the department, for which there was no remuneration, but was a task devolving upon it as a patriotic one, and the items below give to you some appreciation of the work entailed.

Counties.	*Requisition.*	*What Secured.*
ALLEN	900 gallons of oil	———
	20,000 gallons of Tarvia	20,000 gallons of Tarvia.
	1,000 gallons of Tarvia X	1,000 gallons of Tarvia X.
ATCHISON	1,600 pounds of asphalt	———
	525 tons of chats	525 tons of chats.
	500 gallons of Tarvia XC	500 gallons of Tarvia XC.
	2 tons of asphalt filler	———
BUTLER	522,000 bricks	———
	10,750 gallons of oil	———
	194 tons of asphalt	———
	1,850 yards of sand	———
	1,335 tons of brick	1,335 tons of brick.
	734 tons of cement	734 tons of cement.
	2,200 tons of sand	2,200 tons of sand.
	196 tons of limestone	196 tons of limestone.
	3,025 tons of rock	3,025 tons of rock.
	2,500 barrels of cement	2,500 barrels of cement.
	1,000 tons of sand	1,000 tons of sand.
	1,250 tons of rock	1,250 tons of rock.
	54 tons of asphalt	54 tons of asphalt.
	75 tons of asphalt	75 tons of asphalt.
	4,500 gallons of flux oil	4,500 gallons of flux oil.
	6,500 gallons of flux oil	6,500 gallons of flux oil.
CLARK	1,200 barrels of cement	———

Counties.	*Requisition.*	*What Secured.*
COMANCHE	8,000 gallons of oil	———
COWLEY	2,500 barrels of cement	———
	15 tons of reinforced steel	———
	1,607 tons of asphalt	———
	2,500 barrels of cement	2,500 barrels of cement.
	800,000 bricks	550,000 bricks.
	100 tons of asphalt	100 tons of asphalt.
	60 tons of asphalt	60 tons of asphalt.
CRAWFORD	124 barrels of cement	124 barrels of cement.
	45 yards of sand	45 yards of sand.
	61 yards of crushed stone	61 yards of crushed stone.
	2,975 lbs. of reinforced steel bars,	2,975 lbs. reinforced steel bars.
	20,000 gallons of Tarvia	20,000 gallons of Tarvia.
	40 tons of crushed stone	———
	100 tons of sand	———
	80 tons of asphalt filler	80 tons of asphalt filler.
DICKINSON	500 gallons of asphalt	———
DOUGLAS	1,200 to 1,600 gallons of oil	———
FINNEY	10,000 gallons of oil	Canceled by county engineer.
FRANKLIN	100,000 gallons of oil	———
	35,000 gallons of oil	———
GEARY	30,000 barrels of cement	———
JACKSON	100 gallons of asphalt	100 gallons of asphalt.
JOHNSON	36,000 gallons of oil	36,000 gallons of oil.
	8,000 gallons of petroleum	———
	16,000 gallons of oil	———
	150,000 gallons of oil	150,000 gallons of oil.
	6,000 gallons of oil	6,000 gallons of oil.
KINGMAN	2,200 barrels of cement	———
	3,140 pounds of steel	———
	22,000 feet BM lumber	———
	50 cubic yards of crushed stone	———
LABETTE	22,165 cubic yards of gravel	———
	706 barrels of cement	———
	270 cubic yards of sand	———
	467 cubic yards of crushed rock	———
	6,900 pounds of reinforced steel	———
	1,228 feet of reinforced concrete pipe	———
	364 feet of clay pipe	———
	9,140 cubic yards of gravel	———
	14,774 cubic yards of crushed rock,	———
	487 barrels of cement	———
	198 cubic yards of sand	———
	8,238 pounds of reinforced steel	———
	1,680 feet of reinforced concrete pipe	———
	40,000 gallons of asphalt	40,000 gallons of asphalt.
LEAVENWORTH	30,000 gallons of Tarvia B	30,000 gallons of Tarvia B.
	2,568 gallons of Tarvia B	2,568 gallons of Tarvia B.
MIAMI	2,000 gallons of Tarvia X	2,000 gallons of Tarvia X.
	10,000 gallons of Tarvia B	10,000 gallons of Tarvia B.
MONTGOMERY	462 gallons of Tarvia	462 gallons of Tarvia.
	1,250 gallons of Tarvia	1,250 gallons of Tarvia A.
NEMAHA	3,600 gallons of asphalt	3,600 gallons of asphalt.
NEOSHO	5,760 gallons of oil	5,760 gallons of oil.
	7,500 gallons of oil	———
	525 gallons of oil	———
	500 gallons of oil	———
	2,015 gallons of oil	———
	770 gallons of oil	———
RENO	6 cars of Portland cement	6 cars of Portland cement.
	60,000 paving brick	60,000 paving brick.
	312 tons of asphalt	312 tons of asphalt.
SALINE	30,000 gallons of Tarvia X	30,000 gallons of Tarvia X.

Counties.	*Requisition.*	*What Secured.*
SEDGWICK	860,000 bricks	———
	288 tons of asphalt	288 tons of asphalt.
	3,000 barrels of cement	———
	110 tons of asphalt	110 tons of asphalt.
	5,000 gallons of Tarvia B	5,000 gallons of Tarvia B.
	20,000 gallons of oil	———
	50 tons of asphalt	50 tons of asphalt.
	150 tons of asphalt	150 tons of asphalt.
	50 tons of asphalt	50 tons of asphalt.
	103 tons of asphalt filler	103 tons of asphalt filler.
	86 tons of asphalt filler	86 tons of asphalt filler.
	100,000 gallons of oil	———
	40 tons of asphalt	40 tons of asphalt.
SHAWNEE	100 barrels of cement	———
	19,000 pounds of reinforced steel	———
	42,000 gallons of asphalt	42,000 gallons of asphalt.
	42,156 gallons of asphalt	———
	40 tons of asphalt	40 tons of asphalt.
WILSON	10,000 gallons of oil	Canceled.
WYANDOTTE	3,030 tons of crushed stone	3,030 tons of crushed stone.
	5,881 barrels of cement	———
	1,726 tons of sand	———
	4,988 feet of expansion joints	———
	3,000 gallons of gasoline	———
	20,000 gallons of oil	20,000 gallons of oil.
	3,670 cubic yards of crushed stone,	———
	496 feet of concrete pipe	———
	1,243 pounds of reinforced steel	———
	110 barrels of cement	———
	30 cubic yards of sand	———
	50 tons of coal	———
	15 tons of asphalt	15 tons of asphalt.
	10 tons of oil	———
	50 tons of flux oil	50 tons of flux oil.
	145 tons of asphalt	145 tons of asphalt.
	117,240 gallons of asphalt and tar,	117,240 gallons of asphalt and
	2 barrels of oil	100 gallons of oil.

ROAD AND BRIDGE WORK BY COUNTIES.

State laws require that the several counties and townships furnish the Highway Commission with annual reports covering road and bridge work. Also that the Highway Commission furnish to the counties certain blanks and forms for preparing these reports.

The Highway Commission entered upon its duties in April, 1917, and found many counties had not been keeping an itemized statement of their expenditures. It was, therefore, very difficult to secure complete reports for the year 1917.

For the year 1918 most of the counties had county engineers and should have been in position to give a full and complete report as required by law. But a number of them have not filed reports with the Highway Commission, and in the tables which follow, where the items are blank, it is because the county did not file a report with the Commission.

The people of the state are entitled to know how their money was expended and it is hoped that the next biennial report will contain a complete statement from every county.

Where figures in these tables are in italics it is to be understood that the accounts so indicated are overdrawn to that amount.

ALLEN COUNTY.

Commissioners: J. J. Ludlum, J. H. Brown, and Oscar Stuckey.

County Funds.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
General county road fund	$39,313.34	$14,591.44	$24,721.90			
County motor vehicle license fund	5,722.25		5,722.25			
Donations, subscriptions, etc.						
Total road funds	$45,035.59	$14,591.44	$30,444.15			
Total bridge funds						
Grand total						

TOWNSHIP ROAD, BRIDGE, DRAG AND POLL-TAX FUNDS.

Townships.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
Carlyle	$5,699.91	$4,917.56	$782.35			
Cotton Grove	4,123.52	2,971.30	1,152.22			
Deer Creek	1,874.74	1,025.06	849.68			
Elm	7,450.31	6,337.70	1,112.61			
Elsmore	5,878.82	517.00	5,361.82			
Geneva	2,515.91	1,287.67	1,228.24			
Humboldt	10,173.97	4,252.97	5,921.00			
Iola	13,741.37	10,014.61	3,726.76			
Logan	3,469.47	2,043.69	1,425.78			
Marmaton	8,219.32	7,635.20	584.12			
Osage	3,424.74	3,177.41	247.33			
Salem	3,597.40	2,948.00	649.40			
Total	$70,169.48	$47,128.17	$23,041.31			

COST OF DRAGGING EARTH ROADS.

	Total mileage.	1917.			1918.		
		Number of miles dragged.	Average cost one round trip.	Total cost.	Number of miles dragged.	Average cost one round trip.	Total cost.
County roads	104	104	$0.625	$781.61			
Township roads	696	484.10	.573	3,234.45			
Grand total	800	588.10	$0.599	$4,016.06			
Carlyle	*55	36	$0.60	$324.00			
Cotton Grove		30	.50	131.25			
Deer Creek	*63	16	.50	42.25			
Elm							
Elsmore	*99.25	45	.65	189.80			
Geneva		60.5	.50	120.25			
Humboldt		25	.55	246.04			
Iola	*78	55.5	.50	388.50			
Logan	*53	50	.75	450.00			
Marmaton	*96	68	.75	1,020.00			
Osage	*90	58	.50	116.00			
Salem		41	.50	206.36			

* Mileage in 1917.

ANDERSON COUNTY.

Commissioners: J. F. Swonger, Frank McCollam, and J. H. Hill.

County Funds.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
General county road fund	$8,974.10	$9,865.28	*$891.18*	$14,538.39	$9,360.73	$5,177.66
County motor vehicle license fund	776.25	776.25	.....	.....	.....	.....
Donations, subscriptions, etc.	338.53	338.53	.....	.....	.....	.....
Total road funds	$10,088.88	$10,980.06	*$891.18*	$14,538.39	$9,360.73	$5,177.66
Total bridge funds	.....	.....	.....	.....	.....	.....
Grand total	.....	.....	.....	.....	.....	.....

TOWNSHIP ROAD, BRIDGE, DRAG AND POLL-TAX FUNDS.

Townships.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
Indian Creek	$4,735.56	$4,725.75	$9.81	$3,221.61	$2,021.50	$1,200.11
Jackson	2,787.01	1,572.43	1,214.58	2,810.24	.....	2,810.24
Lincoln	2,257.28	4,717.17	*2,459.89*	3,298.52	5,134.43	*1,835.91*
Lone Elm	1,225.57	3,258.16	*2,032.59*	2,538.11	1,644.70	893.41
Monroe	2,368.06	2,195.67	172.39	1,393.10	1,348.29	44.81
Ozark	2,207.41	2,091.49	115.92	3,631.33	1,552.25	2,079.08
Putnam	1,186.34	1.33	1,185.01	2,676.62	1,544.07	1,132.55
Reeder	.....	.....	.....	7,923.03	1,405.70	6,517.33
Rich	4,051.52	4,028.48	23.04	4,192.87	1,504.77	2,688.10
Union	2,179.84	1,642.82	537.02	1,816.21	1,816.21	.....
Walker	1,646.57	417.11	1,229.46	2,962.67	453.03	2,509.64
Washington	.....	.....	.....	3,433.55	3,251.87	181.68
Welda	2,855.82	2,110.83	744.99	4,549.02	1,200.33	3,348.69
Westphalia	4,331.06	3,553.65	777.41	2,872.03	.....	2,872.03
Total	$31,832.04	$30,314.89	$1,517.15	$47,318.91	$22,877.15	$24,441.76

COST OF DRAGGING EARTH ROADS.

	Total mileage.	1917.			1918.		
		Number of miles dragged.	Average cost one round trip.	Total cost.	Number of miles dragged.	Average cost one round trip.	Total cost.
County roads	136	136	$0.75	$1,208.00	136	$0.75	$1,754.68
Township roads	989	526.8	.666	1,888.17	442.9	.75	2,580.04
Grand total	1,125	662.8	$0.708	$3,096.17	578.9	$0.75	$4,334.72
Indian Creek	91	.....	.....	.....	60	$0.75	$186.87
Jackson	.....	30	$0.75	$150.00	.....	.....	.....
Lincoln	89	50	.75	37.50	30	.75	120.00
Lone Elm	80	46	.50	50.00	40	.75	270.00
Monroe	46	27	.75	291.60	31	.75	290.47
Ozark	65	25	.75	75.00	35	.75	156.88
Putnam	.....	36.5	.75	110.50	23.4	.75	175.50
Reeder	131.5	74	.50	380.75	60	.75	45.00
Rich	84	46	.50	92.00	55	.75	280.00
Union	53	33.3	.75	250.00	25	.75	84.20
Walker	.....	57	.75	42.50	14	.75	97.42
Washington	51	.....	.....	.....	26	.75	395.20
Welda	74	42	.75	303.32	43.5	.75	478.50
Westphalia	.....	60	.50	105.00	.....	.....	.....

ATCHISON COUNTY.

Commissioners: S. S. King, C. R. Perdue, and W. F. Heffelfinger.

County Funds.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
General county road fund						
County motor vehicle license fund						
Donations, subscriptions, etc.						
Total road funds						
Total bridge funds						
Grand total						

TOWNSHIP ROAD, BRIDGE, DRAG AND POLL-TAX FUNDS.

Townships.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
Benton						
Center						
Grasshopper						
Kapioma						
Lancaster						
Mt. Pleasant						
Shannon						
Walnut						
Total						

COST OF DRAGGING EARTH ROADS.

	Total mileage.	1917.			1918.		
		Number of miles dragged.	Average cost one round trip.	Total cost.	Number of miles dragged.	Average cost one round trip.	Total cost.
County roads	143			$1,284.17	143	$0.89	$2,590.37
Township roads	785						
Grand total	928						
Benton							
Center							
Grasshopper							
Kapioma							
Lancaster							
Mt. Pleasant							
Shannon							
Walnut							

BARBER COUNTY.

Commissioners: V. C. Sleeper, J. B. Harbaugh, and Riley Lake.

County Funds.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
General county road fund						
County motor vehicle license fund						
Donations, subscriptions, etc.						
Total road funds						
Total bridge funds						
Grand total						

TOWNSHIP ROAD, BRIDGE, DRAG AND POLL-TAX FUNDS.

Townships.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures	Balance.
Astna						
Cedar				$2,682.71	$2,669.37	$13.34
Deerhead						
Eagle						
Elm Mills						
Elwood						
Haselton				1,857.88	1,257.75	600.13
Kiowa						
Lake City						
McAdoo				461.70	324.70	137.00
Medicine Lodge						
Mingona				1,071.32	38.00	1,033.32
Moore						
Nippawalla						
Ridge				1,407.57	669.22	738.35
Sharon						
Sun City						
Turkey Creek						
Valley						
Total				$7,481.18	$4,959.04	$2,522.14

COST OF DRAGGING EARTH ROADS.

	Total mileage.	1917.			1918.		
		Number of miles dragged.	Average cost one round trip.	Total cost.	Number of miles dragged.	Average cost one round trip	Total cost.
County roads	130						
Township roads	770				206	$0.55	$153.79
Grand total	900						
Astna							
Cedar					188	$0.75	$141.39
Deerhead							
Eagle							
Elm Mills							
Elwood							
Haselton							
Kiowa							
Lake City							
McAdoo	36						
Medicine Lodge							
Mingona							
Moore							
Nippawalla							
Ridge	27.5				18	.34	$12.40
Sharon							
Sun City							
Turkey Creek							
Valley							

BARTON COUNTY.

Commissioners: Frank Bloomer, George W. Tucker, and Frank Merten.

County Funds.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
General county road fund	.....	.....	.....	$33,094.59	$19,373.65	$13,720.94
County motor vehicle license fund	.....	.....	.....	19,973.00	12,435.50	7,537.50
Donations, subscriptions, etc	.....	.....	.....	.....	.....	.....
Total road funds	.....	.....	.....	$53,067.59	$31,809.15	$21,258.44
Total bridge funds	$21,597.09	15,155.15	$6,441.94	16,395.63	6,393.37	10,002.26
Grand total	.....	.....	.....	$69,463.22	$38,202.52	$31,260.70

TOWNSHIP ROAD, BRIDGE, DRAG AND POLL-TAX FUNDS.

Townships.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
Albion	$933.77	$300.65	$633.12	$1,944.69	$380.52	$1,564.17
Beaver	1,690.28	972.95	717.33	1,918.59	571.22	1,347.37
Buffalo	2,425.19	881.77	1,543.42	3,040.53	1,579.77	1,460.76
Chevenne	2,950.22	1,557.63	1,392.59	1,811.09	813.90	997.19
Clarence	1,997.59	2,056.28	*58.69*	3,413.20	2,821.26	591.94
Cleveland	1,625.88	1,513.95	111.93	2,280.68	693.27	1,587.41
Comanche	3,800.72	2,994.33	806.39	4,609.78	1,491.18	3,118.60
Eureka	1,525.34	551.08	974.26	2,913.90	1,614.68	1,299.22
Fairview	3,503.75	430.35	3,073.40	3,805.72	964.25	2,841.47
Grant	1,937.20	660.10	1,277.10	2,504.12	585.75	1,918.37
Great Bend	5,362.75	2,942.68	2,420.07	4,491.69	2,783.93	1,707.76
Homestead	3,365.69	1,201.80	2,163.89	3,649.51	415.90	3,233.61
Independent	2,207.08	1,741.14	465.94	941.95	409.98	531.97
Lakin	3,206.58	1,385.41	1,821.17	5,387.84	1,177.24	4,210.60
Liberty	2,750.79	909.44	1,841.35	2,011.40	618.48	1,392.92
Logan	1,735.93	290.15	1,445.78	1,657.94	576.10	1,081.84
Pawnee Rock	2,888.44	787.54	2,100.90	3,143.96	1,128.58	2,015.38
South Bend	3,315.13	2,281.35	1,033.78	3,298.95	2,122.05	1,176.90
Union	1,802.19	794.03	1,008.16	.....	.....	.....
Walnut	2,375.10	956.38	1,418.72	4,482.17	1,906.80	2,575.37
Wheatland	1,237.83	1,461.55	*223.72*	1,230.23	1,131.94	98.29
Total	$52,637.45	$26,670.56	$25,966.89	$58,537.94	$23,786.80	$34,751.14

COST OF DRAGGING EARTH ROADS.

	Total mileage.	1917.			1918.		
		Number of miles dragged.	Average cost one round trip.	Total cost.	Number of miles dragged.	Average cost one round trip.	Total cost.
County roads	222.55	.....	.....	$8,776.96	222.55	$1.00	$2,348.67
Township roads	1,638.2	.....	.....	.....	331.25	.82	1,644.50
Grand total	1,860.75	.....	.....	.....	553.80	$0.91	$3,993.17
Albion	.....	.....	.....	.....	3	$0.50	$3.00
Beaver	65	.....	.....	.....	10	.....	54.75
Buffalo	.....	.....	.....	.....	.....	.....	233.63
Chevenne	77	.....	.....	.....	18	.....	82.00
Clarence	.....	.....	.....	.....	.....	.....	160.30
Cleveland	.....	.....	.....	.....	15	.....	11.25
Comanche	126	.....	.....	.....	21	.....	208.50
Eureka	57.25	.....	.....	.....	.....	.....	.....
Fairview	.....	.....	.....	.....	3	.....	3.00
Grant	57	.....	.....	.....	.....	.....	.....

BARTON COUNTY—CONCLUDED.

	Total mileage.	1917.			1918.		
		Number of miles dragged.	Average cost one round trip.	Total cost.	Number of miles dragged.	Average cost one round trip.	Total cost.
Great Bend					92.25	$0.81	$74.81
Homestead					30	.75	94.45
Independent					17	.75	77.31
Lakin					34	1.00	208.00
Liberty					55	1.20	66.00
Logan	57						182.25
Pawnee Rock	67.5					.75	118.75
South Bend							
Union							
Walnut	60				33		66.50
Wheatland	66						

BOURBON COUNTY.

Commissioners: Thomas Macon, Wilbert Post, and U. G. Clary.

County Funds.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
General county road fund	.....	.....	.....	$34,374.62	$29,609.73	$4,764.89
County motor vehicle license fund	.....	.....	.....	10,618.13	882.63	9,735.50
Donations, subscriptions, etc	.....	.....	.....	.....	.....	.....
Total road funds	.....	.....	.....	$44,992.75	$30,492.36	$14,500.39
Total bridge funds	.....	.....	.....	$22,667.52	$12,507.99	$10,159.53
Grand total	.....	.....	.....	$67,660.27	$43,000.35	$24,659.92

TOWNSHIP ROAD, BRIDGE, DRAG AND POLL-TAX FUNDS.

Townships.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
Drywood	.....	.....	.....	.....	.....	.....
Franklin	.....	.....	.....	.....	.....	.....
Freedom	.....	.....	.....	.....	.....	.....
Marion	.....	.....	.....	.....	.....	.....
Marmaton	.....	.....	.....	.....	.....	.....
Mill Creek	.....	.....	.....	.....	.....	.....
Osage	.....	.....	.....	.....	.....	.....
Pawnee	.....	.....	.....	.....	.....	.....
Scott	.....	.....	.....	.....	.....	.....
Timber Hill	.....	.....	.....	.....	.....	.....
Walnut	.....	.....	.....	.....	.....	.....
Total	.....	.....	.....	.....	.....	.....

COST OF DRAGGING EARTH ROADS.

	Total mileage.	1917.			1918.		
		Number of miles dragged.	Average cost one round trip.	Total cost.	Number of miles dragged.	Average cost one round trip.	Total cost.
County roads	155	.....	.....	.....	150	$1.50	$882.63
Township roads	1,177	.....	.....	.....	.....	.....	.....
Grand total	1,332	.....	.....	.....	.....	.....	.....
Drywood	.....	.....	.....	.....	.....	.....	.....
Franklin	.....	.....	.....	.....	.....	.....	.....
Freedom	.....	.....	.....	.....	.....	.....	.....
Marion	.....	.....	.....	.....	.....	.....	.....
Marmaton	.....	.....	.....	.....	.....	.....	.....
Mill Creek	.....	.....	.....	.....	.....	.....	.....
Osage	.....	.....	.....	.....	.....	.....	.....
Pawnee	.....	.....	.....	.....	.....	.....	.....
Scott	.....	.....	.....	.....	.....	.....	.....
Timber Hill	.....	.....	.....	.....	.....	.....	.....
Walnut	.....	.....	.....	.....	.....	.....	.....

PLATE IX.

DANGEROUS RAILROAD CROSSINGS.

PLATE X.

WATERBOUND MACADAM ROADS IN BOURBON COUNTY.

BROWN COUNTY.

Commissioners: R. V. Brokaw, J. S. Henderson, and C. W. Bredahl.

County Funds.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
General county road fund	$40,924.95	$41,810.96	*$886.01*	$25,827.36	$12,371.88	$13,455.48
County motor vehicle license fund	.....	.....	.....	15,589.52	7,501.53	8,087.99
Donations, subscriptions, etc.	.....	.....	.....	.....	.....	.....
Total road funds	$40,924.95	$41,810.96	*$886.01*	$41,416.88	$19,873.41	$21,543.47
Total bridge funds	22,279.23	19,092.66	3,186.57	49,793.61	41,118.86	8,674.75
Grand total	$63,204.18	$60,903.62	$2,300.56	$91,210.49	$60,992.27	$30,218.22

TOWNSHIP ROAD, BRIDGE, DRAG AND POLL-TAX FUNDS.

Townships.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
Hamlin	$7,000.58	$3,570.94	$3,429.64	$10,320.44	$5,285.95	$5,034.49
Hiawatha	8,250.71	5,447.10	2,803.61	13,883.43	7,518.46	6,364.97
Irving	2,944.86	1,904.91	1,039.95	5,681.28	4,015.68	1,665.60
Mission	14,328.81	8,442.31	5,886.50	22,451.25	13,487.39	8,963.86
Morrill	7,764.54	3,383.32	4,381.22	9,137.43	5,443.21	3,694.22
Padonia	4,746.36	3,817.28	929.08	.....	.....	.....
Powhattan	8,813.48	5,960.65	2,852.83	9,538.55	6,538.18	3,000.37
Robinson	5,295.59	4,243.44	1,052.15	5,889.33	3,059.78	2,829.55
Walnut	10,793.70	5,960.89	4,832.81	11,433.04	9,014.57	2,418.47
Washington	5,826.44	6,400.83	*574.39*	9,988.01	7,956.31	2,031.70
Total	$75,765.07	$49,131.67	$26,633.40	$98,322.76	$62,319.53	$36,003.23

COST OF DRAGGING EARTH ROADS.

	Total mileage.	1917.			1918.		
		Number of miles dragged.	Average cost one round trip.	Total cost.	Number of miles dragged.	Average cost one round trip.	Total cost.
County roads	169.5	169.5	$0.60	$1,445.71	166.25	$0.75	$5,016.43
Township roads	994.12	320	.65	2,954.91	413.55	.70	$5,392.10
Grand total	1,163.62	489.5	0.625	$4,400.62	579.80	0.725	$10,408.53
Hamlin	70.25	13	.....	97.12	70.25	$0.75	$1,127.89
Hiawatha	112.25	19	.....	191.40	.....	.60	1,393.40
Irving	89.75	14	.....	70.00	22	.75	151.50
Mission	166.25	98	$0.75	1,308.94	65	.75	544.00
Morrill	77	6	.....	41.75	51	.60	463.95
Padonia	*77.62	32	.....	160.00	.....	.....	.....
Powhattan	143	40	.....	399.05	50	.75	211.62
Robinson	75.25	24	.60	245.00	18.3	.75	137.50
Walnut	106.50	16	.....	152.65	67	.60	647.00
Washington	76.25	58	.60	289.00	70	.75	715.24

* Mileage in 1917.

BUTLER COUNTY.

Commissioners: Geo. Elder, Jas. H. Sandifer, and W. H. Barker.

County Funds.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
General county road fund	$38,780.85	$34,075.25	$4,705.60	$16,773.61	$17,236.29	*$462.68*
County motor vehicle license fund	43,506.05	14,821.50	28,684.55	34,526.69	6,895.49	27,631.20
Donations, subscriptions, etc	.....	.....	.....	.....	.....	.....
Total road funds	$82,286.90	$48,896.75	$33,390.15	$51,300.30	$24,131.78	$27,168.52
Total bridge funds	.....	.....	.....	50,374.77	28,038.17	22,336.60
Grand total	.....	.....	.....	$101,675.07	$52,169.95	$49,505.12

TOWNSHIP ROAD, BRIDGE, DRAG AND POLL-TAX FUNDS.

Townships.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
Augusta	.....	.....	.....	$17,335.00	$3,672.00	$13,663.00
Benton	.....	.....	.....	2,218.16	1,733.10	485.06
Bloomington	.....	.....	.....	2,127.33	1,351.38	775.95
Bruno	.....	.....	.....	5,371.34	2,085.44	3,285.90
Chelsea	.....	.....	.....	2,871.35	594.56	2,276.79
Clay	.....	.....	.....	2,002.23	643.75	1,358.48
Clifford	.....	.....	.....	2,367.32	1,677.00	690.32
Douglas	.....	.....	.....	3,856.48	7,283.77	*3,427.29*
Eldorado	.....	.....	.....	10,169.95	7,283.29	2,886.66
Fairmount	.....	.....	.....	2,649.96	1,196.90	1,453.06
Fairview	.....	.....	.....	2,273.29	1,439.14	834.15
Glencoe	.....	.....	.....	2,602.80	293.22	2,309.58
Hickory	.....	.....	.....	5,126.54	2,464.34	2,662.20
Lincoln	.....	.....	.....	4,327.38	2,126.81	2,200.57
Little Walnut	.....	.....	.....	4,145.09	2,236.28	1,908.81
Logan	.....	.....	.....	1,500.06	.....	1,500.06
Milton	.....	.....	.....	2,985.59	1,624.94	1,360.65
Murdock	.....	.....	.....	1,415.13	1,293.64	121.49
Pleasant	.....	.....	.....	4,576.02	2,087.05	2,488.97
Plum Grove	.....	.....	.....	3,212.25	3,115.58	96.67
Prospect	.....	.....	.....	5,379.30	2,984.24	2,395.06
Richland	.....	.....	.....	2,320.38	7,779.60	*5,459.22*
Rock Creek	.....	.....	.....	4,037.76	3,970.42	67.34
Rosalia	.....	.....	.....	3,408.25	2,333.23	1,075.02
Spring	.....	.....	.....	1,125.00	1,130.00	*5.00*
Sycamore	.....	.....	.....	4,705.37	2,205.76	2,499.61
Towanda	.....	.....	.....	1,718.89	18,380.65	*16,661.76*
Union	.....	.....	.....	2,416.01	1,431.30	984.71
Walnut	.....	.....	.....	6,083.67	2,013.95	4,069.72
Total	.....	.....	.....	$114,327.90	$86,431.34	$27,896.56

COST OF DRAGGING EARTH ROADS.

	Total mileage.	1917.			1918.		
		Number of miles dragged.	Average cost one round trip.	Total cost.	Number of miles dragged.	Average cost one round trip.	Total cost.
County roads	225	225	$0.60	$2,007.69	212	$0.80	$6,895.49
Township roads	2,466	135	.50	396.65	581.25	.74	4,792.98
Grand total	2,691	360	$0.55	$2,404.34	793.25	$0.77	$11,688.47

BUTLER COUNTY—CONCLUDED.

	Total mileage.	1917.			1918.		
		Number of miles dragged.	Average cost one round trip.	Total cost.	Number of miles dragged.	Average cost one round trip.	Total cost.
Augusta	67.5					$1.50	$350.00
Benton	55.75						
Bloomington	58.5	21	$0.50	$70.15	30	.50	
Bruno	58.75	50	.50	50.00	15	.50	77.25
Chelsea	130				25	1.00	100.00
Clay	47				8	.75	18.80
Clifford	86						
Douglas	58				30	.75	390.00
Eldorado	81.5				17	.75	192.75
Fairmount	65	21	.50	105.00	33	.875	234.40
Fairview	61.75	15	.50	45.00	20	.75	95.67
Glenelc							
Hickory	82				28.75	.75	23.36
Lincoln	76.5						
Little Walnut	50.25				33	.75	333.35
Logan							
Milton							
Murdock	59.75	28	.50	126.50			
Pleasant	67				25	.50	138.25
Plum Grove	71.75						
Prospect	122				55	.75	212.25
Richland	62.5				24	.75	141.35
Rock Creek	57.75				12	.75	45.00
Rosalia	85				40	.75	521.20
Spring	59.5				25	1.00	115.00
Sycamore	176				66	.50	200.00
Towanda	65.5				11.5	.50	285.38
Union	83				83	.45	83.47
Walnut	64						580.00

CHASE COUNTY.

Commissioners: F. A. Stewart, Geo. Robertson, and D. J. White.

County Funds.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
General county road fund				$16,618.73	$10,659.29	$5,959.44
County motor vehicle license fund						
Donations, subscriptions, etc						
Total road funds				$16,618.73	$10,659.29	$5,959.44
Total bridge funds				20,586.10	12,273.12	8,312.98
Grand total				$37,204.83	$22,932.41	$14,272.42

TOWNSHIP ROAD, BRIDGE, DRAG AND POLL-TAX FUNDS.

Townships.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
Bazaar				$2,691.66	$967.71	$1,723.95
Cedar				5,455.89	1,655.73	3,800.16
Cottonwood				5,157 10	1,516.60	3,640.50
Diamond Creek				5,531.72	2,803.62	2,728 10
Falls				4,803.18	4,648.03	155.15
Homestead				1,348.70	473.38	875.32
Matfield				3,393.80	622 62	2,771.18
Strong				2,368.95	1,353.25	1,015.70
Toledo				5,750.78	4,821.95	928.83
Total				$36,501 87	$18,862 98	$17,638.89

COST OF DRAGGING EARTH ROADS.

	Total mileage.	1917.			1918.		
		Number of miles dragged.	Average cost one round trip.	Total cost.	Number of miles dragged.	Average cost one round trip.	Total cost.
County roads	127				122	$0.75	$1,603.43
Township roads	973				161	.704	957.99
Grand total	1,100				283	$1.454	$2,561 42
Bazaar					60	$0.75	$109.80
Cedar	52						84 25
Cottonwood	47				16	.75	96 00
Diamond Creek	44				28	.75	209.40
Falls	54				35.5	.68	215.29
Homestead	65				8	.50	50 00
Matfield	83						
Strong	21				13.5	.75	100.00
Toledo						.75	93.25

CHAUTAUQUA COUNTY.

Commissioners: Neal McCoy, C. W. Floyd, and C. H. Shobe.

County Funds.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
General county road fund				$8,064.59	$7,425.02	$639.57
County motor vehicle license fund				5,788.42	2,606.22	3,182.20
Donations, subscriptions, etc.						
Total road funds				$13,853.01	$10,031.24	$3,821.77
Total bridge funds				4,292.68	3,374.46	918.22
Grand total				$18,145.69	$13,405.70	$4,739.99

TOWNSHIP ROAD, BRIDGE, DRAG AND POLL-TAX FUNDS.

Townships.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
Belleville						
Caneyville						
Center						
Harrison						
Hendricks						
Jefferson						
Lafayette						
Little Caney						
Salt Creek						
Sedan						
Summit						
Washington						
Total						

COST OF DRAGGING EARTH ROADS.

	Total mileage.	1917.			1918.		
		Number of miles dragged.	Average cost one round trip.	Total cost.	Number of miles dragged.	Average cost one round trip.	Total cost.
County roads	151				140.11	$0.90	$2,606.22
Township roads	914						
Grand total	1,065						
Bellville							
Caneyville							
Center							
Harrison							
Hendricks							
Jefferson							
Lafayette							
Little Caney							
Salt Creek							
Sedan							
Summit							
Washington							

CHEROKEE COUNTY.

Commissioners: Lee Mobley, Len Westervelt, and Ira Perkins.

County Funds.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
General county road fund	.....	$15,631.86	*$15,631.86*	$48,075.41	$19,501.77	$28,573.64
County motor vehicle license fund	$11,065.75	6,039.98	5,025.77	24,344.64	15,721.75	8,622.89
Donations, subscriptions, etc	.....	.....	.....	.....	.....	.....
Total road funds	$11,065.75	$21,671.84	*$10,606.09*	$72,420.05	$35,223.52	$37,196.53
Total bridge funds	27,000.00	23,023.79	3,976.21	27,428.65	32,833.78	*5,405.13*
Grand total	$38,065.75	$44,695.63	*$6,629.88*	$99,848.70	$68,057.30	$31,791.40

TOWNSHIP ROAD, BRIDGE, DRAG AND POLL-TAX FUNDS.

Townships.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
Cherokee	.....	.....	.....	$2,318.19	$2,176.54	$141.65
Crawford	.....	.....	.....	1,723.14	874.09	849.05
Garden	.....	.....	.....	6,430.73	4,301.98	2,128.75
Lola	.....	.....	.....	6,027.33	3,935.29	2,092.04
Lowell	.....	.....	.....	.....	.....	.....
Lyon	.....	.....	.....	5,053.61	2,077.46	2,976.15
Mineral	.....	.....	.....	3,416.25	2,052.22	1,364.03
Neosho	.....	.....	.....	.....	.....	.....
Pleasant View	.....	.....	.....	3,689.11	1,772.91	1,916.20
Ross	.....	.....	.....	.....	.....	.....
Salmanca	.....	.....	.....	3,246.85	.....	3,246.85
Shawnee	.....	.....	.....	4,789.72	2,413.86	2,375.86
Sheridan	.....	.....	.....	6,084.32	5,480.69	603.63
Spring Valley	.....	.....	.....	.....	.....	.....
Total	.....	.....	.....	$42,779.25	$25,085.04	$17,694.21

COST OF DRAGGING EARTH ROADS.

	Total mileage.	1917.			1918.		
		Number of miles dragged.	Average cost one round trip.	Total cost.	Number of miles dragged.	Average cost one round trip.	Total cost.
County roads	155	155	$1.00	$1,856.68	155	$1.00	$3,590.37
Township roads	983	.....	.....	.....	.....	.....	.....
Grand total	1,138	.....	.....	.....	.....	.....	.....
Cherokee	.....	.....	.....	.....	.....	.....	.....
Crawford	.....	.....	.....	.....	.....	.....	.....
Garden	.....	.....	.....	.....	.....	.....	.....
Lola	.....	.....	.....	.....	.....	.....	.....
Lowell	.....	.....	.....	.....	.....	.....	.....
Lyon	.....	.....	.....	.....	.....	.....	.....
Mineral	.....	.....	.....	.....	.....	.....	.....
Neosho	.....	.....	.....	.....	.....	.....	.....
Pleasant View	.....	.....	.....	.....	.....	.....	.....
Ross	.....	.....	.....	.....	.....	.....	.....
Salmanca	.....	.....	.....	.....	.....	.....	.....
Shawnee	.....	.....	.....	.....	.....	.....	.....
Sheridan	.....	.....	.....	.....	.....	.....	.....
Spring Valley	.....	.....	.....	.....	.....	.....	.....

CHEYENNE COUNTY.

Commissioners: W. H. Smith, Geo. Indorf, and Henry Greisler.

County Funds.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
General county road fund				$4,676.35	$2,372.40	$2,303.95
County motor vehicle license fund				4,118.20	720.00	3,398.20
Donations, subscriptions, etc.						
Total road funds				$8,794.55	$3,092.40	$5,702.15
Total bridge funds						
Grand total						

TOWNSHIP ROAD, BRIDGE, DRAG AND POLL-TAX FUNDS.

Townships.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
Alexander				$826.48	$700.03	$126.45
Beaver				1,396.86	932.51	462.35
Benkelman				1,778.95	1,628.05	150.90
Bird City				787.12		787.12
Calhoun				1,280.93	600.00	680.93
Cherry Creek				2,271.17	1,478.17	793.00
Cleveland Run				1,039.91	897.50	142.41
Dent				1,570.83	1,266.34	304.49
Eureka				512.03	25.00	487.03
Evergreen				754.53	236.28	518.25
Jaqua				1,154.12	735.00	419.12
Jefferson				906.04	550.00	356.04
Lawnridge				1,287.07	594.95	692.12
Nuttycombe				1,194.79	20.00	1,174.79
Orlando				595.52	452.97	142.55
Porter				1,180.43	825.00	355.43
Wano				2,415.95	1,703.00	712.95
Total				$20,950.73	$12,644.80	$8,305.93

COST OF DRAGGING EARTH ROADS.

	Total mileage.	1917.			1918.		
		Number of miles dragged.	Average cost one round trip.	Total cost.	Number of miles dragged.	Average cost one round trip.	Total cost.
County roads	96				36	$1.00	$720.00
Township	504				185	1.00	333.00
Grand total	600				221	$1.00	$1,053.00
Alexander					14	$1.00	$14.00
Beaver					30	1.00	60.00
Benkelman					6	1.00	36.00
Bird City					10	1.00	50.00
Calhoun							
Cherry Creek							
Cleveland Run					28	1.00	28.00
Dent					60	1.00	60.00
Eureka					5	1.00	15.00
Evergreen					4	1.00	12.00
Jaqua					3	1.00	9.00
Jefferson							
Lawnridge					12	1.00	36.00
Nuttycombe							
Orlando							
Porter					13	1.00	13.00
Wano							

CLARK COUNTY.

Commissioners: F. E. Daily, G. T. Wilson, and Frank Crouch.

County Funds.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
General county road fund*				$16,949.23	$18,294.38	*$1,345.15*
County motor vehicle license fund				1,731.33	227.90	1,503.43
Donations, subscriptions, etc						
Total road funds				$18,680.56	$18,522.28	$158.28
Total bridge funds						
Grand total						

* Includes bridges.

TOWNSHIP ROAD, BRIDGE, DRAG AND POLL-TAX FUNDS.

Townships.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
Appleton				$8,147.61	$3,681.05	$4,466.56
Brown				4,076.60	4,707.25	*630.65*
Center				4,547.45	5,462.38	*914.93*
Cimmarron				2,364.04	1,762.98	601.06
Edwards				197.67	106.00	91.67
Englewood				1,735.94	1,557.60	178.34
Lexington						
Liberty				1,744.94	1,454.70	290.24
Sitka						
Vesta						
Total				$22,814.25	$18,731.96	$4,082.29

COST OF DRAGGING EARTH ROADS.

	Total mileage.	1917.			1918.		
		Number of miles dragged.	Average cost one round trip.	Total cost.	Number of miles dragged.	Average cost one round trip.	Total cost.
County roads	73					$0.75	$277.90
Township roads	585					.77	244.29
Grand total	658					$0.76	$522.19
Appleton	134						
Brown					5	$0.82	$66.90
Center	104				3		36.25
Cimmarron	46				45	.75	32.07
Edwards	58.25						
Englewood	44.5				6	.75	57.32
Lexington							9.00
Liberty	34.25						
Sitka						.75	42.75
Vesta							

CLAY COUNTY.

Commissioners: Henry Mellies, Wallace Harner, and Joseph Gingrich.

County Funds.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
General county road fund				$24,957.37	$12,869.92	$12,087.45
County motor vehicle license fund				13,178.03	7,757.88	5,420.15
Donations, subscriptions, etc						
Total road funds				$38,135.40	$20,627.80	$17,507.60
Total bridge funds						
Grand total						

TOWNSHIP ROAD, BRIDGE, DRAG AND POLL-TAX FUNDS.

Townships.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
Athelstane						
Blaine						
Bloom						
Chapman						
Clay Center						
Exeter						
Five Creeks						
Garfield						
Gill						
Goshen						
Grant						
Hays						
Highland						
Mulberry						
Oakland						
Republican						
Sherman						
Union						
Total						

COST OF DRAGGING EARTH ROADS.

	Total mileage.	1917.			1918.		
		Number of miles dragged.	Average cost one round trip.	Total cost.	Number of miles dragged.	Average cost one round trip.	Total cost.
County roads	180				176.5	$0.75	$1,601.63
Township roads	1,157						
Grand total	1,337						
Athelstane							
Blaine							
Bloom							
Chapman							
Clay Center							
Exeter							
Five Creeks							
Garfield							
Gill							
Goshen							
Grant							
Hays							
Highland							
Mulberry							
Oakland							
Republican							
Sherman							
Union							

CLOUD COUNTY.

Commissioners: Jas. Turner, Sam Ward, and L. F. Davidson.

County Funds.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expendit res.	Balance.
General county road fund	$36,585.18	$44,445.99	$7,*860.81*	$37,559.12	$26,145.28	$11,413.84
County motor vehicle license fund	.....	.....	.....	11,385.83	2,832.99	8,552.84
Donations, subscriptions, etc	.....	.....	.....	.....	.....	.....
Total road funds	$36,585.18	$44,445.99	$7,*860.81*	$48,944.95	$28,978.27	$19,966.68
Total bridge funds	15,182.85	.....	15,182.85	38,303.58	15,806.58	22,497.00
Grand total	$51,768.03	$44,445.99	$7,322.04	$87,248.53	$44,784.85	$42,463.68

TOWNSHIP ROAD, BRIDGE, DRAG AND POLL-TAX FUNDS.

Townships.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
Arion	.....	.....	.....	.....	.....	.....
Aurora	.....	.....	.....	.....	.....	.....
Buffalo	.....	.....	.....	.....	.....	.....
Center	.....	.....	.....	.....	.....	.....
Colfax	.....	.....	.....	.....	.....	.....
Elk	.....	.....	.....	.....	.....	.....
Grant	.....	.....	.....	.....	.....	.....
Lawrence	.....	.....	.....	.....	.....	.....
Lincoln	.....	.....	.....	.....	.....	.....
Lyon	.....	.....	.....	.....	.....	.....
Meridith	.....	.....	.....	.....	.....	.....
Nelson	.....	.....	.....	.....	.....	.....
Oakland	.....	.....	.....	.....	.....	.....
Shirley	.....	.....	.....	.....	.....	.....
Sibley	.....	.....	.....	.....	.....	.....
Solomon	.....	.....	.....	.....	.....	.....
Starr	.....	.....	.....	.....	.....	.....
Summit	.....	.....	.....	.....	.....	.....
Total	.....	.....	.....	.....	.....	.....

COST OF DRAGGING EARTH ROADS.

	Total mileage.	1917.			1918.		
		Number of miles dragged.	Average cost one round trip.	Total cost.	Number of miles dragged.	Average cost one round trip.	Total cost.
County roads	199	.....	.....	.....	.....	.....	$3,036.76
Township roads	1,161	.....	.....	.....	.....	.....	.....
Grand total	1,360	.....	.....	.....	.....	.....	.....
Arion	.....	.....	.....	.....	.....	.....	.....
Aurora	.....	.....	.....	.....	.....	.....	.....
Buffalo	.....	.....	.....	.....	.....	.....	.....
Center	.....	.....	.....	.....	.....	.....	.....
Colfax	.....	.....	.....	.....	.....	.....	.....
Elk	.....	.....	.....	.....	.....	.....	.....
Grant	.....	.....	.....	.....	.....	.....	.....
Lawrence	.....	.....	.....	.....	.....	.....	.....
Lincoln	.....	.....	.....	.....	.....	.....	.....
Lyon	.....	.....	.....	.....	.....	.....	.....
Meridith	.....	.....	.....	.....	.....	.....	.....
Nelson	.....	.....	.....	.....	.....	.....	.....
Oakland	.....	.....	.....	.....	.....	.....	.....
Shirley	.....	.....	.....	.....	.....	.....	.....
Sibley	.....	.....	.....	.....	.....	.....	.....
Solomon	.....	.....	.....	.....	.....	.....	.....
Starr	.....	.....	.....	.....	.....	.....	.....
Summit	.....	.....	.....	.....	.....	.....	.....

COFFEY COUNTY.

Commissioners: W. A. Pierson, Chas. Irwin, and Geo. Ott.

County Funds.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
General county road fund	$30,146.53	$22,789.13	$7,357.40	$16,236.30	$9,321.26	$6,915.04
County motor vehicle license fund	.....	.....	.....	3,239.25	3,299.54	*60 39*
Donations, subscriptions, etc	.....	.....	.....	.....	.....	.....
Total road funds	$30,146.53	$22,789.13	$7,357.40	$19,475.55	$12,620.80	$6,854.75
Total bridge funds	.....	.....	.....	22,970.33	15,803.40	7,166.93
Grand total	.....	.....	.....	$42,445.88	$28,424.20	$14,021.68

TOWNSHIP ROAD, BRIDGE, DRAG AND POLL-TAX FUNDS.

Townships.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
Avon	$1,059.96	$822.03	$237.93	$2,232.22	$1,918.42	$313.80
Burlington	4,691.66	4,372.44	319.22	3,750.38	3,798.33	*47.95*
California	2,375.31	1,016.72	1,358.59	5,091.25	1,091.25	4,000.00
Hampden	1,463.41	220.75	1,242.66	2,075.82	1,063.17	1,012.65
Key West	4,472.38	4,472.38	.....	4,503.76	7,126.45	*2,622.69*
Leroy	2,300.03	1,881.31	418.72	3,043.97	2,770.44	273.53
Liberty	8,103.81	8,088.33	15.48	7,589.02	7,588.99	.03
Lincoln	2,751.02	2,223.81	527.21	6,579.25	5,313.91	1,265.34
Neosho	1,614.29	917.01	697.28	2,595.65	1,769.91	825.74
Ottumwa	2,897.89	388.78	2,509.11	4,962.84	4,228.95	733.89
Pleasant	2,646.25	2,133.71	512.54	4,644.96	2,541.55	2,103.41
Pottawatomie	2,802.02	2,217.37	584.65	.....	.....	.....
Rock Creek	.....	.....	.....	6,081.68	4,641.53	1,440.15
Spring Creek	5,480.80	5,195.97	284.83	3,624.36	2,148.96	1,475.40
Starr	1,948.76	1,810.63	138.13	2,293.54	1,432.73	860.81
Total	$44,607.59	$35,761.24	$8,846.35	$59,068.70	$47,434.59	$11,634.11

COST OF DRAGGING EARTH ROADS.

	Total mileage.	1917.			1918.		
		Number of miles dragged.	Average cost one round trip.	Total cost.	Number of miles dragged.	Average cost one round trip.	Total cost.
County roads	163	.....	.....	.....	163	$0.75	$3,299.54
Township roads	1,133	235	$0 625	$975.67	.....	.74	2,590.63
Grand total	1,296	.....	.....	.....	.....	$0.745	$5,890.17
Avon	.....	20	$0.50	$60.00	18	$0.75	$108.44
Burlington	.....	.....	.....	.....	.....	.75	469.46
California	*65	.....	.....	125.21	.....	.75	279.50
Hampden	*50.5	16	.75	37.03	.....	.....	90.91
Key West	*80.5	.....	.....	.....	10	.75	70.60
Leroy	.....	.....	.....	.....	.....	.....	281.94
Liberty	*150.5	3	.....	22.50	.....	.....	.....
Lincoln	*71	36	.....	135.66	.....	.....	.....
Neosho	67	20	.75	60.00	.....	.75	108.36
Ottumwa	*86	.....	.....	.....	60	.65	204.54
Pleasant	.....	80	.....	80.00	40	.75	166.67
Pottawatomie	*86	.....	.....	.....	.....	.....	.....
Rock Creek	.....	.....	.50	233.42	29	.75	418.83
Spring Creek	.....	40	.75	121.85	41	.....	391.38
Starr	*56.75	20	.50	100.00	.....	.....	.....

* Mileage in 1917.

COMANCHE COUNTY.

Commissioners: R. W. Scott, Chas. W. Sherman, and Jno. Todd.

County Funds.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
General county road fund						
County motor vehicle license fund						
Donations, subscriptions, etc						
Total road funds						
Total bridge funds						
Grand total						

TOWNSHIP ROAD, BRIDGE, DRAG AND POLL-TAX FUNDS.

Townships.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
Avilla				$4,334.94	$3,089.57	$1,245.37
Coldwater				13,336.47	7,221.08	6,115.39
Irvin				1,187.29	906.36	280.93
Logan						
Nescatunga				1,793.84	478.69	1,315.15
Powell				2,314.09	1,912.20	401.89
Protection						
Rumsey						
Shimer				1,160.00	3,074.09	1,914.09
Valley				3,170.40	1,236.04	1,934.36
Total				$27,297.03	$17,918.03	$9,379.00

COST OF DRAGGING EARTH ROADS.

	Total mileage.	1917.			1918.		
		Number of miles dragged.	Average cost one round trip.	Total cost.	Number of miles dragged.	Average cost one round trip.	Total cost.
County roads	81				22.5		$305.97
Township roads	556				73	$0.71	798.78
Grand total	637				95.5		$1,104.75
Avilla	75						
Coldwater	160.5				50	$0.75	$296.16
Irvin	23						
Logan							
Nescatunga	39.5						
Powell	40				3	.63	3.80
Protection							217.00
Rumsey							
Shimer							
Valley	56				20	.75	272.82

COWLEY COUNTY.

Commissioners: W. M. Huston, Carl L. Dees, and Robert Goforth.

County Funds.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
General county road fund	$35,360.36	$12,396.17	$22,964.19			
County motor vehicle license fund						
Donations, subscriptions, etc.						
Total road funds	$35,360.36	$12,396.17	$22,964.19			
Total bridge funds	45,733.79	32,518.11	13,215.68	64,335.54	15,266.07	$59,069.47
Grand total	$81,094.15	$44,914.28	$36,179.87			

TOWNSHIP ROAD, BRIDGE, DRAG AND POLL-TAX FUNDS.

Townships.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
Beaver						
Bolton						
Cedar						
Creswell						
Dexter						
Fairview						
Grant						
Harvey						
Liberty						
Maple						
Ninnescah						
Omnia						
Otter						
Pleasant Valley						
Richland						
Rock Creek						
Salem						
Sheridan						
Silver Creek						
Silverdale						
Spring Creek						
Tisdale						
Vernon						
Walnut						
Windsor						
Total						

COST OF DRAGGING EARTH ROADS.

	Total mileage.	1917.			1918.		
		Number of miles dragged.	Average cost one round trip.	Total cost.	Number of miles dragged.	Average cost one round trip	Total cost.
County roads	193	160		$2,400.00	175	$0.75	$2,774.00
Township roads	1,732						
Grand total	1,925						
Beaver							
Bolton							
Cedar							
Creswell							
Dexter							

COWLEY COUNTY—Concluded.

	Total mileage.	1917.			1918.		
		Number of miles dragged.	Average cost one round trip.	Total cost.	Number of miles dragged.	Average cost one round trip.	Total cost.
Fairview							
Grant							
Harvey							
Liberty							
Maple							
Ninnescah							
Omnia							
Otter							
Pleasant Valley							
Richland							
Rock Creek							
Salem							
Sheridan							
Silver Creek							
Silverdale							
Spring Creek							
Tisdale							
Vernon							
Walnut							
Windsor							

CRAWFORD COUNTY.

Commissioners: Clarence Cover, Jno. Beitzinger, and W. H. Braden.

County Funds.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
General county road fund	.....	.....	.....	$62,075.85	$7,083.51	$54,992.34
County motor vehicle license fund	.....	.....	.....	30,739.76	3,009.84	27,729.92
Donations, subscriptions, etc	.....	.....	.....	.....	.....	.....
Total road funds	.....	.....	.....	$92,815.61	$10,093.35	$82,722.26
Total bridge funds	.....	.....	.....	$42,007.12	$24,772.90	$17,234.22
Grand total	.....	.....	.....	$134,822.73	$34,866.25	$99,956.48

TOWNSHIP ROAD, BRIDGE, DRAG AND POLL-TAX FUNDS.

Townships.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
Baker	.....	.....	.....	$14,495.95	$13,483.29	$1,012.66
Crawford	.....	.....	.....	5,915.93	3,130.69	2,785.24
Grant	.....	.....	.....	4,955.24	4,065.64	889.60
Lincoln	.....	.....	.....	10,929.31	7,890.46	3,038.85
Osage	.....	.....	.....	5,462.09	4,561.24	900.85
Sheridan	.....	.....	.....	10,842.38	8,433.45	2,408.93
Sherman	.....	.....	.....	5,193.59	3,684.56	1,509.03
Walnut	.....	.....	.....	8,377.27	5,530.19	2,847.08
Washington	.....	.....	.....	23,152.31	20,659.12	2,493.19
Total	.....	.....	.....	$89,324.07	$71,438.64	$17,885.43

COST OF DRAGGING EARTH ROADS.

	Total mileage.	1917.			1918.		
		Number of miles dragged.	Average cost one round trip.	Total cost.	Number of miles dragged.	Average cost one round trip.	Total cost.
County roads	140	.....	.....	.....	140	$1.00	$3,016.18
Township roads	1,047.5	.....	.....	.....	.....	.95	7,205.33
Grand total	1,187.5	.....	.....	.....	.....	$0.975	$10,221.51
Baker	119.75	.....	.....	.....	.....	$1.00	876.50
Crawford	111.5	.....	.....	.....	.....	.....	449.62
Grant	97.5	.....	.....	.....	.....	1.00	553.10
Lincoln	124	.....	.....	.....	.....	.98	797.70
Osage	115.75	.....	.....	.....	.....	1.00	802.38
Sheridan	135	.....	.....	.....	.....	.875	863.06
Sherman	115.75	.....	.....	.....	99	.75	643.95
Walnut	113.5	.....	.....	.....	.....	1.00	682.02
Washington	114.75	.....	.....	.....	.....	1.00	1,537.00

DECATUR COUNTY.

Commissioners: Jno. A. Foley, Chas. L. Frickey, and Thos. E. McKay.

County Funds.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
General county road fund	$5,660.98	$3,910.51	$1,750.47	$10,177.27	$4,986.66	$5,190.61
County motor vehicle license fund	4,509.64	2,291.89	2,217.75	5,070.96	3,396.04	1,674.92
Donations, subscriptions, etc.	.....	.....	.....	.....	.....	.....
Total road funds	$10,170.62	$6,202.40	$3,968.22	$15,248.23	$8,382.70	$6,865.53
Total bridge funds	7,737.66	10,063.38	2,325.72	2,766.26	3,356.80	590.54
Grand total	$17,908.28	$16,265.78	$1,642.50	$18,014.49	$11,739.50	$6,274.99

TOWNSHIP ROAD, BRIDGE, DRAG AND POLL-TAX FUNDS.

Townships.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
Allison	.....	.....	.....	$1,589.24	$1,355.89	$233.35
Altory	.....	.....	.....	2,327.93	1,442.26	885.67
Bassettville	.....	.....	.....	1,220.82	953.80	267.02
Beaver	.....	.....	.....	2,410.18	2,069.25	340.93
Center	.....	.....	.....	1,201.73	1,079.91	121.82
Cook	.....	.....	.....	1,571.80	1,494.75	77.05
Custer	.....	.....	.....	1,029.21	981.96	47.25
Dresden	.....	.....	.....	2,080.60	1,360.16	720.44
Finley	.....	.....	.....	2,757.96	877.48	1,880.48
Garfield	.....	.....	.....	1,042.56	956.59	85.97
Grant	.....	.....	.....	2,053.24	1,122.15	931.09
Harlan	.....	.....	.....	3,061.12	2,765.77	295.35
Jennings	.....	.....	.....	2,140.15	1,440.33	699.82
Liberty	.....	.....	.....	1,364.98	884.65	480.33
Lincoln	.....	.....	.....	3,243.57	1,472.04	1,771.53
Logan	.....	.....	.....	1,390.01	750.01	640.00
Lyon	.....	.....	.....	1,374.06	949.45	424.61
Oberlin	.....	.....	.....	1,297.09	1,213.66	83.43
Olive	.....	.....	.....	1,907.79	1,770.05	137.74
Pleasant Valley	.....	.....	.....	3,544.04	2,299.11	1,244.93
Prairie Dog	.....	.....	.....	1,503.73	829.35	674.38
Roosevelt	.....	.....	.....	1,325.40	1,272.46	52.94
Sappa	.....	.....	.....	1,111.54	1,046.54	65.00
Sherman	.....	.....	.....	1,527.09	588.99	938.10
Summit	.....	.....	.....	844.20	634.95	209.25
Total	.....	.....	.....	$44,920.04	$31,611.56	$13,308.48

COST OF DRAGGING EARTH ROADS.

	Total mileage.	1917.			1918.		
		Number of miles dragged.	Average cost one round trip.	Total cost.	Number of miles dragged.	Average cost one round trip.	Total cost.
County roads	166	78	$1.00	$244.00	123	$1.00	$2,919.94
Township roads	1,439	.....	.....	.....	206.5	.97	821.05
Grand total	1,605	.....	.....	.....	329.5	0.985	$3,740.99
Allison	.....	.....	.....	.....	21	$1.00	$43.20
Altory	.....	.....	.....	.....	3	.75	4.50
Bassettville	.....	.....	.....	.....	.....	.....	.....
Beaver	.....	.....	.....	.....	6	1.00	19.50

PLATE XI.

BITUMINOUS MACADAM ROAD, SHAWNEE COUNTY.

CONCRETE OVERFLOW ROAD IN HARPER COUNTY.

(Built in 1912.)

WATERBOUND MACADAM IN SHAWNEE COUNTY.

PLATE XII.

A GRADED AND DRAGGED EARTH ROAD IN WILSON COUNTY.

GRAVEL ROAD IN WILSON COUNTY.

LAYING A GRAVEL ROAD IN ANDERSON COUNTY.

DECATUR COUNTY—CONCLUDED.

	Total mileage.	1917.			1918.		
		Number of miles dragged.	Average cost one round trip.	Total cost.	Number of miles dragged.	Average cost one round trip.	Total cost.
Center					3.5	$1.00	$8.50
Cook					14	1.00	14.75
Custer							
Dresden					17	.50	85.50
Finley							
Garfield							
Grant							
Harlan					5	1.25	62.75
Jennings					19	1.00	153.00
Liberty					4	1.00	12.25
Lincoln					12	1.00	56.00
Logan					18	1.00	36.25
Lyon	66				8	1.00	38.75
Oberlin					12	1.00	75.50
Olive					9	1.00	57.00
Pleasant Valley					14.5		59.35
Prairie Dog					11	1.00	19.50
Roosevelt							
Sappa					3.5	1.00	12.25
Sherman					11.5	1.00	55.00
Summit					14.5	1.00	17.50

DICKINSON COUNTY.

Commissioners: J. B. Hostetter, Harry C. Brenizer, and Jno. Book.

County Funds.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
General county road fund	$5,732.19	$8,023.28	*$8,291.09*	.....	.....	.....
County motor vehicle license fund	27,980.68	13,931.94	14,048.74	.....	.....	.....
Donations, subscriptions, etc	.....	.....	.....	.....	.....	.....
Total road funds	$33,712.87	$21,955.22	$11,757.65	.....	.....	.....
Total bridge funds	10,270.02	22,386.77	*12,116.75*	$19,921.10	$28,304.29	*$8,383.19*
Grand total	$43,982.89	$44,341.99	*$359.10*	.....	.....	.....

TOWNSHIP ROAD, BRIDGE, DRAG AND POLL-TAX FUNDS.

Townships.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
Banner	.....	.....	.....	.....	.....	.....
Buckeye	.....	.....	.....	.....	.....	.....
Center	.....	.....	.....	$4,865.71	$2,103.51	$2,762.20
Cheever	.....	.....	.....	.....	.....	.....
Flora	.....	.....	.....	4,753.72	1,222.81	3,530.91
Fragrant Hill	.....	.....	.....	.....	.....	.....
Garfield	.....	.....	.....	.....	.....	.....
Grant	.....	.....	.....	.....	.....	.....
Haves	.....	.....	.....	.....	.....	.....
Holland	.....	.....	.....	.....	.....	.....
Hope	.....	.....	.....	5,606.89	1,480.75	4,126.14
Jefferson	.....	.....	.....	.....	.....	.....
Liberty	.....	.....	.....	2,334.77	1,461.53	873.24
Lincoln	.....	.....	.....	3,484 61	2,578.04	906 57
Logan	.....	.....	.....	3,072 67	1,831.42	1,241 25
Lyon	.....	.....	.....	5,237.64	2,040.18	3,197.46
Newbern	.....	.....	.....	.....	.....	.....
Noble	.....	.....	.....	4,827.18	4,631.31	195.87
Rhinehart	.....	.....	.....	.....	.....	.....
Ridge	.....	.....	.....	.....	.....	.....
Sherman	.....	.....	.....	1,776.14	1,776.14	.....
Union	.....	.....	.....	3,201.02	1,384.12	1,816.90
Wheatland	.....	.....	.....	.....	.....	.....
Wollowdale	.....	.....	.....	.....	.....	.....
Total	.....	.....	.....	$39,160 35	$20,509.81	$18,650.54

COST OF DRAGGING EARTH ROADS.

	Total mileage.	1917.			1918.		
		Number of miles dragged.	Average cost one round trip.	Total cost.	Number of miles dragged.	Average cost one round trip	Total cost.
County roads	178	171	$0.75	$7,041.44	178	$0.75	$2,394.77
Township roads	1,478	.....	.....	.....	.....	.....	.....
Grand total	1,656	.....	.....	.....	.....	.....	.....
Banner	.....	.....	.....	.....	.....	.....	.....
Buckeye	.....	.....	.....	.....	.....	.....	.....
Center	.....	.....	.....	.....	.....	.....	.....
Cheever	.....	.....	.....	.....	.....	.....	.....
Flora	.....	.....	.....	.....	.....	.....	.....

DICKINSON COUNTY—CONCLUDED.

	Total mileage.	1917.			1918.		
		Number of miles dragged.	Average cost one round trip.	Total cost.	Number of miles dragged.	Average cost one round trip.	Total cost.
Fragrant Hill							
Garfield							
Grant							
Hayes							
Holland							
Hope							
Jefferson							
Liberty							
Lincoln							
Logan							
Lyon							
Newbern							
Noble							
Rhinehart							
Ridge							
Sherman							
Union							
Wheatland							
Wollowdale							

DONIPHAN COUNTY.

Commissioners: Jno. Stricker, C. A. Kibler, jr., and R. H. Larzelere.

County Funds.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures	Balance.
General county road fund						
County motor vehicle license fund						
Donations, subscriptions, etc						
Total road funds						
Total bridge funds				$20,000.00	$14,307.22	$5,692.78
Grand total						

TOWNSHIP ROAD, BRIDGE, DRAG AND POLL-TAX FUNDS.

Townships.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
Burr Oak						
Center						
Iowa						
Marion						
Union						
Washington						
Wayre						
Wolf River						
Total						

COST OF DRAGGING EARTH ROADS.

	Total mileage.	1917.			1918.		
		Number of miles dragged.	Average cost one round trip	Total cost.	Number of miles dragged.	Average cost one round trip	Total cost.
County roads	100						$1,493.18
Township roads							5,005.25
Grand total							$6,498.43
Burr Oak							$150 00
Center							1,000.00
Iowa							1,182 25
Marion							0 50
Union							1,222 00
Washington							200 00
Wayre							220 50
Wolf River							1,000 00

DOUGLAS COUNTY.

Commissioners: W. R. Green, Allison Andrews, and J. L. Hoover.

County Funds.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
General county road fund				$20,592.20	$4,405.95	$16,186.25
County motor vehicle license fund				12,575.72	1,774.07	10,801.65
Donations, subscriptions, etc				946.59		946.59
Total road funds				$34,114.51	$6,180.02	$27,934.49
Total bridge funds						
Grand total						

TOWNSHIP ROAD, BRIDGE, DRAG AND POLL-TAX FUNDS.

Townships.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
Clinton						
Eudora						
Grant						
Kanwaka						
Lecompton						
Marion						
Palmyra						
Wakarusa						
Willow Springs						
Total						

COST OF DRAGGING EARTH ROADS.

	Total mileage.	1917.			1918.		
		Number of miles dragged.	Average cost one round trip.	Total cost.	Number of miles dragged.	Average cost one round trip.	Total cost.
County roads	136						
Township roads	864						
Grand total	1,000						
Clinton							
Eudora							
Grant							
Kanwaka							
Lecompton							
Marion							
Palmyra							
Wakarusa							
Willow Springs							

EDWARDS COUNTY.

Commissioners: David Gibson, H. N. Sater, and E. F. Eslinger.

County Funds.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
General county road fund*.	$16,067.72	$7,332.71	$8,735.01	$18,702.03	$4,670.42	$14,031.61
County motor vehicle license fund	6,532.00	.....	6,532.00	3,884.54	1,118.02	2,766.52
Donations, subscriptions, etc.	.....	.....	.....	.....	.....	.....
Total road funds	$22,599.72	$7,332.71	$15,267.01	$22,586.57	$5,788.44	$16,798.13
Total bridge funds	.....	.....	.....	.....	.....	.....
Grand total	$22,599.72	$7,332.71	$15,267.01	$22,586.57	$5,788.44	$16,798.13

* Includes bridges.

TOWNSHIP ROAD, BRIDGE, DRAG AND POLL-TAX FUNDS.

Townships.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
Belpre	$2,808.68	$2,759.81	$48.87	$2,769.37	$1,963.46	$805.91
Franklin	2,336.40	1,113.52	1,222.88	2,984.19	282.03	2,702.16
Jackson	2,875 67	1,527.45	1,348.22	2,744.94	1,238.51	1,506.43
Kinsley	4,834.85	4,083.71	751 14	4,350.38	3,217.39	1,132.99
Lincoln	5,569.65	2,312.07	3,257.58	6,279.13	2,835 66	3,443.47
Logan	1,795.93	1,328.48	467.45	1,798.93	1,518.40	280.53
North Brown	3,106.77	1,823.48	1,283.29	3,473.75	2,136.24	1,337.51
South Brown	5,783.04	2,392.26	3,390.78	5,395.14	3,719.02	1,676 12
Trenton	3,433.64	1,253.58	2,180.06	4,743.41	2,450.81	2,292.60
Wayne	5,129.31	2,504.55	2,624.76	4,374.07	2,083.82	2,290 25
Total	$37,673 94	$21,098.91	$16,575.03	$38,913.31	$21,445.34	$17,467.97

COST OF DRAGGING EARTH ROADS.

	Total mileage.	1917.			1918.		
		Number of miles dragged.	Average cost one round trip.	Total cost.	Number of miles dragged.	Average cost one round trip.	Total cost.
County roads	72	72	$0.75	$108.00	72	$0.85	$1,017.77
Township roads	806	674	.75	516.72	187	.75	1,243.93
Grand total	878	746	$0.75	$624.72	259	$0.80	$2,261.70
Belpre	.....	.....	.....	.....	24	$0.75	$141.99
Franklin	.....	18	$0.75	13.25	.....	.....	.....
Jackson	.....	50	.75	39.50	13	.75	87.00
Kinsley	.....	95	.75	72 15	28	.75	210.00
Lincoln	.....	70	.75	52.50	8	.75	48.00
Logan	.....	100	.75	82.00	24	.75	73.00
North Brown	.....	190	.75	143.50	15	.75	92.00
South Brown	.....	20	.75	15 22	22	.75	165.40
Trenton	.....	108	.75	81 25	35	.75	256.17
Wayne	.....	23	.75	17.35	18	.75	170.37

ELK COUNTY.

Commissioners: S. T. Davis, F. H. Perkins, and A. W. Wicker.

County Funds.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
General county road fund	$11,434.66	$8,571.72	$2,862.94	$7,681.16	$2,338.99	$5,342.17
County motor vehicle license fund	1,732.53	623.67	1,108.86	3,679.15	1,725.19	1,953.96
Donations, subscriptions, etc.	.....	.....	.....	.....	.....	.....
Total road funds	$13,167.19	$9,195.39	$3,971.80	$11,360.31	$4,064.18	$7,296.13
Total bridge funds	.....	.....	.....	6,690.66	5,290.66	1,400.00
Grand total	.....	.....	.....	$18,050 97	$9,354.84	$8,696.13

TOWNSHIP ROAD, BRIDGE, DRAG AND POLL-TAX FUNDS.

Townships.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
Elk Falls	.....	.....	.....	.....	.....	.....
Greenfield	.....	.....	.....	.....	.....	.....
Howard	.....	.....	.....	.....	.....	.....
Liberty	.....	.....	.....	.....	.....	.....
Longton	.....	.....	.....	.....	.....	.....
Oak Valley	.....	.....	.....	.....	.....	.....
Painterhood	.....	.....	.....	.....	.....	.....
Pawpaw	.....	.....	.....	.....	.....	.....
Union Center	.....	.....	.....	.....	.....	.....
Wildcat	.....	.....	.....	.....	.....	.....
Total	.....	.....	.....	.....	.....	.....

COST OF DRAGGING EARTH ROADS.

	Total mileage.	1917.			1918.		
		Number of miles dragged.	Average cost one round trip.	Total cost.	Number of miles dragged.	Average cost one round trip.	Total cost.
County roads	126	.....	.....	.....	118	$0.75	$1,725.19
Township roads	874	.....	.....	.....	.....	.....	.....
Grand total	1,000	.....	.....	.....	.....	.....	.....
Elk Falls	.....	.....	.....	.....	.....	.....	.....
Greenfield	.....	.....	.....	.....	.....	.....	.....
Howard	.....	.....	.....	.....	.....	.....	.....
Liberty	.....	.....	.....	.....	.....	.....	.....
Longton	.....	.....	.....	.....	.....	.....	.....
Oak Valley	.....	.....	.....	.....	.....	.....	.....
Painterhood	.....	.....	.....	.....	.....	.....	.....
Pawpaw	.....	.....	.....	.....	.....	.....	.....
Union Center	.....	.....	.....	.....	.....	.....	.....
Wildcat	.....	.....	.....	.....	.....	.....	.....

ELLIS COUNTY.

Commissioners: Eli Cole, Jno. Jacobs, and Herman J. Tholen.

County Funds.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
General county road fund						
County motor vehicle license fund						
Donations, subscriptions, etc						
Total road funds						
Total bridge funds						
Grand total						

TOWNSHIP ROAD, BRIDGE, DRAG AND POLL-TAX FUNDS.

Townships.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures	Balance.
Big Creek						
Buckeye						
Catharine						
Ellis						
Freedom						
Hamilton						
Herzog						
Lookout						
Pleasant Hill						
Saline						
Smoky Hill						
Victoria						
Walker						
Wheatland						
Total						

COST OF DRAGGING EARTH ROADS.

	Total mileage.	1917.			1918.		
		Number of miles dragged.	Average cost one round trip.	Total cost.	Number of miles dragged.	Average cost one round trip.	Total cost.
County roads	125						
Township roads	989						
Grand total	1,114						
Big Creek							
Buckeye							
Catharine							
Ellis							
Freedom							
Hamilton							
Herzog							
Lookout							
Pleasant Hill							
Saline							
Smoky Hill							
Victoria							
Walker							
Wheatland							

ELLSWORTH COUNTY.

Commissioners: E. O. Cunningham, Chester A. Chapman, and Jno. Pfeiffer.

County Funds.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
General county road fund	$16,145.88	$16,145.88	.....	$7,532.53	$7,532.53	.....
County motor vehicle license fund	5,143.96	3,799.74	$1,344.22	2,959.64	1,371.64	1,588.00
Donations, subscriptions, etc.	.....	.....	.....	.....	.....	.....
Total road funds	$21,289.84	$19,945.62	$1,344.22	$10,492.17	$8,904.17	$1,588.00
Total bridge funds	21,366.36	37,254.44	*15,888.08*	17,955.75	16,460.72	$1,495.03
Grand total	$42,656.20	$57,200.06	*$14,543.86*	$28,447.92	$25,364.89	$3,083.03

TOWNSHIP ROAD, BRIDGE, DRAG AND POLL-TAX FUNDS.

Townships.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
Ash Creek	.....	.....	.....	$3,076.89	$1,510.27	$1,566.62
Black Wolf	.....	.....	.....	5,813.30	1,353.49	4,459.81
Carneiro	.....	.....	.....	2,045.54	895.60	1,149.94
Clear Creek	.....	.....	.....	2,623.01	1,841.87	781.14
Columbia	.....	.....	.....	3,464.24	979.08	2,485.16
Ellsworth	.....	.....	.....	6,942.24	5,564.45	1,377.79
Empire	.....	.....	.....	4,610.66	2,170.55	2,440.11
Garfield	.....	.....	.....	1,625.25	1,350.69	274.56
Green Garden	.....	.....	.....	4,850.24	2,058.42	2,791.82
Langley	.....	.....	.....	1,592.63	1,056.75	535.88
Lincoln	.....	.....	.....	2,794.30	1,263.10	1,531.20
Mulberry	.....	.....	.....	1,788.36	962.42	825.94
Noble	.....	.....	.....	2,763.98	2,719.96	44.02
Palacky	.....	.....	.....	3,771.44	1,549.26	2,222.18
Sherman	.....	.....	.....	2,842.04	1,189.38	1,652.66
Thomas	.....	.....	.....	4,268.74	1,479.30	2,789.44
Valley	.....	.....	.....	2,749.55	1,449.48	1,300.07
Wilson	.....	.....	.....	3,532.49	1,665.50	1,866.99
Trivoli	.....	.....	.....	2,086.83	941.92	1,144.91
Total	.....	.....	.....	$63,241.73	$32,001.49	$31,240.24

COST OF DRAGGING EARTH ROADS.

	Total mileage.	1917.			1918.		
		Number of miles dragged.	Average cost one round trip.	Total cost.	Number of miles dragged.	Average cost one round trip.	Total cost.
County roads	118.5	94	$0.75	$1,113.37	103	$0.75	$1,371.64
Township roads	969	.....	.....	.....	342	.71	1,745.36
Grand total	1,087.5	.....	.....	.....	445	$0.73	$3,117.00
Ash Creek	36.25	.....	.....	.....	5	$0.75	$20.00
Black Wolf	42.5	.....	.....	.....	20	.75	106.35
Carneiro	35.5	.....	.....	.....	8	.50	39.25
Clear Creek	46.5	.....	.....	.....	.....	.....	.....
Columbia	61	.....	.....	.....	20	.75	88.97
Ellsworth	41.25	.....	.....	.....	20	.75	120.48
Empire	71.5	.....	.....	.....	21	.75	110.50
Garfield	49.5	.....	.....	.....	17	.75	80.00
Green Garden	62.25	.....	.....	.....	18	.75	102.12

ELLSWORTH COUNTY—Concluded.

	Total mileage.	1917.			1918.		
		Number of miles dragged.	Average cost one round trip.	Total cost.	Number of miles dragged.	Average cost one round trip.	Total cost.
Langley	36.5	.....	.....	.....	17	$0.75	$100.00
Lincoln	53.25	.....	.....	.....	16	.75	70.01
Mulberry	52.75	.....	.....	.....	8	.50	40.00
Noble	48	.....	.....	.....	25	.75	103 91
Palacky	60.5	.....	.....	.....	31	.75	86 65
Sherman	54	.....	.....	.....	21	.50	97.77
Thomas	54.5	.....	.....	.....	16	.75	90.00
Valley	62.75	.....	.....	.....	35	.75	138 75
Wilson	60.5	.....	.....	.....	30	.75	278.85
Trivoli	40	.....	.....	.....	14	.75	71.75

FINNEY COUNTY.

Commissioners: I. J. Carter, A. R. Towles, and D. P. Cathcart.

County Funds.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
General county road fund	$19,836.00	$16,971.52	$2,864.48	$17,030.50	$13,186.62	$3,843.88
County motor vehicle license fund	2,684.75	276.86	2,407.89	5,849.68	3,135.03	2,714.65
Donations, subscriptions, etc.	.....	.....	.....	.....	.....	.....
Total road funds	$22,520.75	$17,248.38	$5,272.37	$22,880.18	$16,321.65	$6,558.53
Total bridge funds	.....	.....	.....	10,209.38	6,778.06	3,431.32
Grand total	.....	.....	.....	$33,089.56	$23,099.71	$9,989.85

TOWNSHIP ROAD, BRIDGE, DRAG AND POLL-TAX FUNDS.

Townships.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
Garden City	$2,827.46	$854.13	$1,973.33	$3,300.49	$1,742.87	$1,557.62
Garfield	1,495.14	1,495.14	.....	1,892.74	1,984.33	91.59
Ivanhoe	769.36	589.56	179.80	761.73	615.12	146.61
Pierceville	136.27	122.81	13.46	881.85	34.85	847.00
Pleasant Valley	668.96	252.64	416.32	586.96	.....	586.96
Sherlock	3,754.42	690.47	3,063.95	4,023.00	2,833.53	1,189.47
Terry	1,152.90	865.83	287.07	917.32	255.28	662.04
Total	$10,804.51	$4,870.58	$5,933.93	$12,364.09	$7,465.98	$4,898.11

COST OF DRAGGING EARTH ROADS.

	Total mileage.	1917.			1918.		
		Number of miles dragged.	Average cost one round trip.	Total cost.	Number of miles dragged.	Average cost one round trip.	Total cost.
County roads	135.5	130	$0.75	$1,518.28	127	$0.75	$3,013.17
Township roads	868.5	426	.60	417.51	109	.70	785.72
Grand total	1,004	556	$0.675	$1,935.79	236	$0.725	$3,798.89
Garden City	98	.....	.....	$121.69	57	$0.75	$255.41
Garfield	164	.....	.....	.....	16	.....	81.25
Ivanhoe	76.5	.....	.....	40.45	8	.75	64.55
Pierceville	106	.....	.....	.....	3	.60	5.50
Pleasant Valley	78	.....	.....	.....	.....	.....	.....
Sherlock	130.5	.....	$0.60	255.37	25	.70	379.01
Terry	215.5	.....	.....	.....	.....	.....	.....

FORD COUNTY.

Commissioners: W. H. Davis, C. Orebaugh, and C. R. Aten.

County Funds.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
General county road fund						
County motor vehicle license fund						
Donations, subscriptions, etc						
Total road funds						
Total bridge funds						
Grand total						

TOWNSHIP ROAD, BRIDGE, DRAG AND POLL-TAX FUNDS.

Townships.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
Bloo						
Bucklin						
Concord						
Dodge						
Enterprise						
Fairview						
Ford						
Grandview						
Pleasant Valley						
Richland						
Royal						
Sodville						
Spearville						
Wheatland						
Wilburn						
Total						

COST OF DRAGGING EARTH ROADS.

	Total mileage.	1917.			1918.		
		Number of miles dragged.	Average cost one round trip.	Total cost.	Number of miles dragged.	Average cost one round trip.	Total cost.
County roads	188						
Township roads	1,319						
Grand total	1,507						
Bloo							
Bucklin							
Concord							
Dodge							
Enteprise							
Fairview							
Ford							
Grandview							
Pleasant Valley							
Richland							
Royal							
Sodville							
Spearville							
Wheatland							
Wilburn							

FRANKLIN COUNTY.

Commissioners: Jno. Z. Clark, W. B. Lomas, and Otto Milam.

County Funds.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
General county road fund						
County motor vehicle license fund						
Donations, subscriptions, etc						
Total road funds						
Total bridge funds						
Grand total						

TOWNSHIP ROAD, BRIDGE, DRAG AND POLL-TAX FUNDS.

Townships.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
Appanoose						
Centropolis						
Cutler						
Franklin						
Greenwood						
Harrison						
Hayes						
Homewood						
Lincoln						
Ohio						
Ottawa						
Peoria						
Pomona						
Pottawatomie						
Richmond						
Williamsburg						
Total						

COST OF DRAGGING EARTH ROADS.

	Total mileage.	1917.			1918.		
		Number of miles dragged.	Average cost one round trip.	Total cost.	Number of miles dragged.	Average cost one round trip.	Total cost.
County roads	177						
Township roads	975				42	$0 60	$101.85
Grand total	1,152						
Appanoose							
Centropolis							
Cutler							
Franklin							
Greenwood							
Harrison							
Hayes							
Homewood							
Lincoln					42	$0.60	$101.85
Ohio							
Ottawa							
Peoria							
Pomona							
Pottawatomie							
Richmond							
Williamsburg							

GEARY COUNTY.

Commissioners: Hale P. Powers, Chas. J. Dalquest, and S. W. Harris.

County Funds.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
General county road fund	$17,604.39	$17,657.35	$52.96	$27,624.73	$27,675.44	$50.71
County motor vehicle license fund	7,222.13	2,808.24	4,413.89	14,307.42	6,596.41	7,711.01
Donations, subscriptions, etc	.....	.....	.....	.....	.....	.....
Total road funds	$24,826.52	$20,465.59	$4,360.93	$41,932.15	$34,271.85	$7,660 30
Total bridge funds	.....	.....	.....	18,451.75	11,750.45	6,693 30
Grand total	.....	.....	.....	$60,383.90	$46,030.30	$14,353.60

TOWNSHIP ROAD, BRIDGE, DRAG AND POLL-TAX FUNDS.

Townships.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
Blakely	$1,324.99	$1,325 49	$0.50	$1,584.75	$1,312 17	$272.58
Jackson	1,567 57	1,504.90	62 67	939 59	208 88	730.71
Jefferson	2,472 74	2,131.24	341.50	1,784 61	1,772.20	12.41
Liberty	3,122 50	2,217.06	905.44	3,216 69	1,872 53	1,344.16
Lyon	1,748.81	1,224.43	524.38	1,030.38	444 26	586.12
Milford	4,291 88	2,588.88	1,703.00	4,566.80	1,942.35	2,624.45
Smoky Hill	8,204.53	2,196.54	6,007 99	9,710 03	1,667.18	8,042.85
Wingfield	1,800.33	1,625.15	175.18	1,456.97	1,119.03	337.94
Total	$24,533 35	$14,813 69	$9,719 66	$24,289 82	$10,338.60	$13,951.22

COST OF DRAGGING EARTH ROADS.

	Total mileage.	1917.			1918.		
		Number of miles dragged.	Average cost one round trip.	Total cost.	Number of miles dragged.	Average cost one round trip.	Total cost.
County roads	95.83	.....	.....	$318.34	91	$0.73	$988.65
Township roads	436 26	.....	.....	850.99	.....	.74	979.64
Grand total	532 09	.....	.....	$1,169.33	.....	$0.735	$1,968 29
Blakely	33 73	.....	.....	$74.18	.....	$0.75	$81 65
Jackson	39 6	.....	.....	23 50	.....	.75	52 71
Jefferson	47 5	.....	.....	193.50	.....	.75	113.75
Liberty	82 3	.....	.....	121 25	32.33	.75	24.25
Lyon	47 55	.....	.....	137 91	.....	.70	91 98
Milford	59 88	.....	.....	56.00	.....	.75	176.52
Smoky Hill	81 2	.....	.....	215 40	.....	.75	374.13
Wingfield	44.5	.....	.....	29 25	.....	.75	64.75

GOVE COUNTY.

Commissioners: N. C. Lewis, Thomas F. Poole, and Geo. F. Wilson.

County Funds.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
General county road fund				$9,315.95	$6,064.49	$3,251.46
County motor vehicle license fund				1,178.25	878.83	299.42
Donations, subscriptions, etc.						
Total road funds				$10,494.20	$6,943.32	$3,550.88
Total bridge funds						
Grand total						

TOWNSHIP ROAD, BRIDGE, DRAG AND POLL-TAX FUNDS.

Townships.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
Baker						
Gaeland						
Gove						
Grainfield						
Grinnell						
Jerome				$1,828.25	$947.47	$880.78
Larabee						
Lewis						
Payne						
Total				$1,828.25	$947.47	$880.78

COST OF DRAGGING EARTH ROADS.

	Total mileage.	1917.			1918.		
		Number of miles dragged.	Average cost one round trip.	Total cost.	Number of miles dragged.	Average cost one round trip.	Total cost.
County roads	148						
Township roads	352						
Grand total	500						
Baker							
Gaeland							
Gove							
Grainfield							
Grinnell							
Jerome							
Larabee							
Lewis							
Payne							

GRAHAM COUNTY.

Commissioners: T. M. Born, C. H. Thompson, and W. A. Manaugle.

County Funds.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
General county road fund						
County motor vehicle license fund						
Donations, subscriptions, etc						
Total road funds						
Total bridge funds						
Grand total						

TOWNSHIP ROAD, BRIDGE, DRAG AND POLL-TAX FUNDS.

Townships.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
Allodium						
Bryant						
Gettysburg						
Graham						
Happy				$4,119.59	$1,114.23	$3,005.36
Hill City						
Indiana						
Mill Brook						
Morlan						
Nicodemus						
Pioneer						
Salomon						
Wild Horse						
Total				$4,119 59	$1,114.23	$3,005.36

COST OF DRAGGING EARTH ROADS.

	Total mileage.	1917.			1918.		
		Number of miles dragged.	Average cost one round trip.	Total cost.	Number of miles dragged.	Average cost one round trip.	Total cost.
County roads	139						
Township roads	1,170				1	$0.75	$1.50
Grand total	1,309						
Allodium							
Bryant							
Gettysburg							
Graham							
Happy	50						
Hill City							
Indiana							
Mill Brook					1	$0.75	$1.50
Morlan							
Nicodemus							
Pioneer							
Salomon							
Wild Horse							

PLATE XIII.

A FINE SPECIMEN OF A THROUGH-GIRDER BRIDGE.

AN EXCELLENT JOB OF RUBBLE WORK IN RUSSELL COUNTY.

GIRDER BRIDGE WITH RAIL APPROACH.

GRANT COUNTY.

Commissioners: Frank F. Lewis, J. M. Williams, and E. A. Kepley.

County Funds.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
General county road fund						
County motor vehicle license fund						
Donations, subscriptions, etc.						
Total road funds						
Total bridge funds						
Grand total						

TOWNSHIP ROAD, BRIDGE, DRAG AND POLL-TAX FUNDS.

Townships.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
Lincoln						
Sherman						
Sullivan						
Total						

COST OF DRAGGING EARTH ROADS.

	Total mileage.	1917.			1918.		
		Number of miles dragged.	Average cost one round trip.	Total cost.	Number of miles dragged.	Average cost one round trip.	Total cost.
County roads	51						
Township roads							
Grand total							
Lincoln							
Sherman							
Sullivan							

GRAY COUNTY.

Commissioners: J. G. Byer, Edwin Benton, and G. Rennie.

County Funds.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
General county road fund	$3,488.20	$3,662 46	$174.26	$3,707.35	$2,531.31	$1,176.04
County motor vehicle license fund	3,659.87	1,626.59	2,033.28	2,614.49	815.07	1,799.42
Donations, subscriptions, etc.	.....	.....	.....	.....	.....	.....
Total road funds	$7,148.07	$5,289.05	$1,859.02	$6,321.84	$3,346.38	$2,975.46
Total bridge funds	3,488.20	1,640.35	1,847 85	3,547.06	3,035.31	511.75
Grand total	$10,636.27	$6,929.40	$3,706.87	$9,868.90	$6,381.69	$3,487.21

TOWNSHIP ROAD, BRIDGE, DRAG AND POLL-TAX FUNDS.

Townships.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
Cimarron	$4,457.86	$552.75	$3,905.11	$3,905.11	$1,099.51	$2,805.60
Copeland	1,701.97	1,469.53	232.44	1,231.06	1,002.70	228 36
Foote	722.39	342.50	379 89	1,013.77	299.42	714.35
Hess	3,421 14	2,458.94	962 20	2,274.21	1,491.45	782.76
Ingalls	1,267.13	793.00	474.13	2,013.54	1,262.87	750.67
Logan	2,320.65	48.00	2,272 65	2,572 65	17.45	2,555.20
Montezuma	1,861.05	968.50	892.55	1,360.69	1,538.17	177.48
Total	$15,752 19	$6,633 22	$9,118.97	$14,371 03	$6,711.57	$7,659.46

COST OF DRAGGING EARTH ROADS.

	Total mileage.	1917.			1918.		
		Number of miles dragged.	Average cost one round trip.	Total cost.	Number of miles dragged.	Average cost one round trip.	Total cost.
County roads	124	57	$0.876	$449.75	88	$0.967	$942.65
Township roads	672	47	.625	27.75	27	.625	15.25
Grand total	796	104	$0.750	$477 50	115	$1.592	$957.90
Cimarron	77	.....	.....	.....	.....	.....	.....
Copeland	90	.....	.....	.....	.....	.....	.....
Foote	91	17	$0.75	12.75	7	$0.75	$5.25
Hess	158	30	.50	15.00	20	.50	10.00
Ingalls	129	.....	.....	.....	.....	.....	.....
Logan	59	.....	.....	.....	.....	.....	.....
Montezuma	68	.....	.....	.....	.....	.....	.....

GREELEY COUNTY.

Commissioners: J. S. Davison, F. E. Adolphson, and R. C. Burnett.

County Funds.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
General county road fund	$402.10	.....	$402.10	.....	.....	.....
County motor vehicle license fund	.....	.....	.....	.....	.....	.....
Donations, subscriptions, etc.	.....	.....	.....	.....	.....	.....
Total road funds	.....	.....	.....	.....	.....	.....
Total bridge funds	.....	.....	.....	.....	.....	.....
Grand total	.....	.....	.....	.....	.....	.....

TOWNSHIP ROAD, BRIDGE, DRAG AND POLL-TAX FUNDS.

Townships.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
Colony	.....	.....	.....	.....	.....	.....
Harrison	.....	.....	$6.00	.....	.....	.....
Tribune	.....	.....	.....	.....	.....	.....
Total	.....	.....	$6.00	.....	.....	.....

COST OF DRAGGING EARTH ROADS.

	Total mileage.	1917.			1918.		
		Number of miles dragged.	Average cost one round trip.	Total cost.	Number of miles dragged.	Average cost one round trip.	Total cost.
County roads	62	.....	.....	.....	61	$2.00	$123.75
Township roads	163	.....	.....	.....	.....	.....	20.00
Grand total	225	.....	.....	.....	.....	.....	$143.75
Colony	.....	.....	.....	.....	.....	.....	.....
Harrison	70	.....	.....	.....	.....	.....	.....
Tribune	92	.....	.....	.....	.....	.....	20.00

GREENWOOD COUNTY.

Commissioners: W. D. Laird, L. A. Ladd, and Alvin Holmes.

County Funds.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
General county road fund				$40,317.03	$22,787.88	$17,529.15
County motor vehicle license fund				461.00	461.00	
Donations, subscriptions, etc.						
Total road funds				$40,778.03	$23,248.88	$17,529.15
Total bridge funds				19,956.66	16,741.28	3,215.38
Grand total				$60,734.69	$39,990.16	$20,744.53

TOWNSHIP ROAD, BRIDGE, DRAG AND POLL-TAX FUNDS.

Townships.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
Bachelor						
Eureka						
Fall River						
Janesville						
Lane						
Madison						
Otter Creek						
Pleasant Grove						
Quincy						
Salem						
Salt Springs						
Shell Rock						
South Salem						
Spring Creek						
Twin Groves						
Total						

COST OF DRAGGING EARTH ROADS.

	Total mileage.	1917.			1918.		
		Number of miles dragged.	Average cost one round trip.	Total cost.	Number of miles dragged.	Average cost one round trip.	Total cost.
County roads	176				176	$0.75	$1,858.94
Township roads	1,669						
Grand total	1,845						
Bachelor							
Eureka							
Fall River							
Janesville							
Lane							
Madison							
Otter Creek							
Pleasant Grove							
Quincy							
Salem							
Salt Springs							
Shell Rock							
South Salem							
Spring Creek							
Twin Groves							

HAMILTON COUNTY.

Commissioners: S. S. Clapp, H. S. Crittenden, and T. J. Crist.

County Funds.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
General county road fund*	.....	.....	.....	$4,271.39	$9,582.11	*$5,310.72*
County motor vehicle license fund	.....	.....	.....	754.76	551.55	203.21
Donations, subscriptions, etc.	.....	.....	.....	.....	.....	.....
Total road funds	.....	.....	.....	$5,026.15	$10,133.66	*$5,107.51*
Total bridge funds	.....	.....	.....	.....	.....	.....
Grand total	.....	.....	.....	.....	.....	.....

* Includes bridges.

TOWNSHIP ROAD, BRIDGE, DRAG AND POLL-TAX FUNDS.

Townships.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
Bear Creek	.....	.....	.....	$142.96	.....	$142.96
Coolidge	.....	.....	.....	316.74	$182.00	134.74
Kendall	.....	.....	.....	711.86	327.38	384.48
Lamont	.....	.....	.....	333.53	218.11	115.42
Liberty	.....	.....	.....	33.83	.....	33.83
Medway	.....	.....	.....	71.74	.....	71.74
Richland	.....	.....	.....	64.00	.....	64.00
Syracuse	.....	.....	.....	3,185.46	376.77	2,808.69
Total	.....	.....	.....	$4,860.12	$1,104.26	$3,755.86

COST OF DRAGGING EARTH ROADS.

	Total mileage.	1917.			1918.		
		Number of miles dragged.	Average cost one round trip.	Total cost.	Number of miles dragged.	Average cost one round trip.	Total cost.
County roads	61	.....	.....	.....	24	$1.09	$551.55
Township roads	71	.....	.....	.....	.....	.....	191.77
Grand total	132	.....	.....	.....	.....	.....	$743.32
Bear Creek	6	.....	.....	.....	.....	.....	.....
Coolidge	27	.....	.....	.....	.....	.....	.....
Kendall	10	.....	.....	.....	.....	.....	.....
Lamont	7	.....	.....	.....	.....	.....	.....
Liberty	.....	.....	.....	.....	.....	.....	.....
Medway	.....	.....	.....	.....	.....	.....	.....
Richland	6	.....	.....	.....	.....	.....	.....
Syracuse	8	.....	.....	.....	.....	.....	$191.77

HARPER COUNTY.

Commissioners: D. B. Heacock, J. O. Quigg, and F. F. Rife.

County Funds.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
General county road fund	$29,973.17	$42,098.20	*$12,125.03*	.....	.....	.....
County motor vehicle license fund	9,530.50	3,260.66	6,269.84	.....	.....	.....
Donations, subscriptions, etc.	.....	.....	.....	.....	.....	.....
Total road funds	$39,503.67	$45,358.86	*$5,855.19*	.....	.....	.....
Total bridge funds	.....	.....	.....	$27,221.16	$16,169.91	$11,051.25
Grand total	.....	.....	.....	.....	.....	.....

TOWNSHIP ROAD, BRIDGE, DRAG AND POLL-TAX FUNDS.

Townships.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
Anthony	.....	.....	.....	$3,754.27	$2,799.24	$955.03
Banner	.....	.....	.....	1,544.80	1,443.83	100 97
Berlin	.....	.....	.....	2,497.05	1,463.37	1,033 68
Blaine	.....	.....	.....	1,640.96	1,004.17	636.79
Chikaskia	.....	.....	.....	1,497.86	1,079.88	417.98
Eagle	.....	.....	.....	1,983.55	873.79	1,109.76
Empire	.....	.....	.....	.....	.....	.....
Garden	.....	.....	.....	.....	.....	.....
Grant	.....	.....	.....	1,469.63	902.60	567.03
Green	.....	.....	.....	3,121.13	1,949.99	1,171.14
Harper	.....	.....	.....	1,939.72	999.93	939.79
Lake	.....	.....	.....	1,902.91	1,191.42	711.49
Lawn	.....	.....	.....	.....	.....	.....
Liberty	.....	.....	.....	865.74	858.74	7.00
Odell	.....	.....	.....	.....	.....	.....
Pilot Knob	.....	.....	.....	980.04	1,137.67	*157.63*
Ruella	.....	.....	.....	.....	.....	.....
Silver Creek	.....	.....	.....	.....	.....	.....
Spring	.....	.....	.....	2,463.46	2,229.97	233.49
Stohrville	.....	.....	.....	.....	.....	.....
Total	.....	.....	.....	$25,661.12	$17,934.60	$7,726.52

COST OF DRAGGING EARTH ROADS.

	Total mileage.	1917.			1918.		
		Number of miles dragged.	Average cost one round trip.	Total cost.	Number of miles dragged.	Average cost one round trip.	Total cost.
County roads	180	.....	.....	.....	180	$0.75	$2,703.88
Township roads	1,278	.....	.....	.....	295.7	.74	997.87
Grand total	1,458	.....	.....	.....	475.7	$0.745	$3,701.75
Anthony	.....	.....	.....	.....	22	$0.70	$173.90
Banner	59	.....	.....	.....	40.2	.75	91.50
Berlin	.....	.....	.....	.....	7	.70	24.80
Blaine	.....	.....	.....	.....	30	1.40	68.58
Chikaskia	.....	.....	.....	.....	6	.70	17.50
Eagle	85	.....	.....	.....	.....	.....	.....
Empire	.....	.....	.....	.....	10	.70	78.00
Garden	.....	.....	.....	.....	.....	.....	.....

HARPER COUNTY—CONCLUDED.

	Total mileage.	1917.			1918.		
		Number of miles dragged.	Average cost one round trip.	Total cost.	Number of miles dragged.	Average cost one round trip.	Total cost.
Grant					94		65.80
Green					10	$0.70	103.24
Harper					37	.60	112.10
Lake							
Lawn							
Liberty	55				20	.70	70.00
Odell							
Pilot Knob					10	.60	100.35
Ruella							
Silver Creek					6	.60	59.60
Spring	114				3.5	.70	32.50
Stohrville							

HARVEY COUNTY.

Commissioners: C. L. Perkins, S. S. Williamson, and E. P. Barrows.

County Funds.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
General county road fund**	$36,540.24	$11,215.01	$25,325.23	.....	.....	.....
County motor vehicle license fund	4,498.11	.....	4,498.11	.....	.....	.....
Donations subscriptions, etc.	.....	.....	.....	.....	.....	.....
Total road funds	$41,038.35	$11,215.01	$29,823.34	.....	.....	.....
Total bridge funds	.....	.....	.....	.....	.....	.....
Grand total	.....	.....	.....	.....	.....	.....

** Includes bridges.

TOWNSHIP ROAD, BRIDGE, DRAG AND POLL-TAX FUNDS.

Townships.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
Alta	$1,041.92	$600.60	$441.32	$1,266.92	$572.52	$694.40
Burrton	1,868.43	715.91	1,152.52	1,868.43	715.91	1,152.52
Darlington	1,928.66	1,722.24	206.42	1,325.17	.....	1,325.17
Emma	1,753.72	1,370.57	383.15	2,605.13	1,448.68	1,156.45
Garden	708.63	426.00	282.63	1,701.08	1,148.45	552.63
Halstead	3,297.10	755.48	2,541.62	2,666.79	2,072.51	594.28
Highland	1,669.26	1,653.73	15.53	2,477.28	1,763.81	713.47
Lake	1,434.80	1,434.80	.....	3,125.56	1,476.61	1,648.95
Lakin	3,882.57	3,573.28	309.29	3,823.59	2,510.40	1,313.19
Macon	.....	.....	.....	2,913.64	1,166.97	1,746.67
Newton	1,665.87	.....	1,665.87	3,652.00	1,231.99	2,420.01
Pleasant	2,300.00	1,770.41	529.59	3,624.00	2,667.00	957.00
Richland	1,813.34	90.00	1,723.34	3,690.75	1,306.75	2,384.00
Sedgwick	3,968.16	3,840.63	127.53	3,548.49	3,103.00	445.49
Walton	4,764.55	2,905.52	1,859.03	5,003.24	2,929.82	2,073.42
Total	$32,097.01	$20,859.17	$11,237.84	$43,292.07	$24,114.42	$19,177.65

COST OF DRAGGING EARTH ROADS.

	Total mileage.	1917.			1918.		
		Number of miles dragged.	Average cost one round trip.	Total cost.	Number of miles dragged.	Average cost one round trip.	Total cost.
County roads	146	168	$0.50	$3,429.24	168	$0.75	$1,892.36
Township roads	982	428.25	.50	2,234.64	.....	.....	.....
Grand total	1,128	596 25	$0.50	$5,663.88	.....	.....	.....
Alta	57	57	$0.50	$66.00	.....	.....	.....
Burrton	41	16	.50	$48.00	.....	.....	.....
Darlington	.....	.....	.....	.....	.....	.....	.....
Emma	64	.....	.50	130.75	.....	.....	.....
Garden	50	24	.50	96 00	.....	.....	.....
Halstead	56	56	.50	140.00	.....	.....	.....
Highland	60.5	40	.50	240.00	.....	.....	.....
Lake	*61	.....	.....	70.10	.....	.....	.....
Lakin	61	61	.50	356.04	.....	.....	.....
Macon	58	.....	.....	.....	.....	.....	.....
Newton	50	32	.50	224.00	.....	.....	.....
Pleasant	58.5	35	.50	160.00	.....	.....	.....
Richland	60.5	24	.50	192.00	.....	.....	.....
Sedgwick	86	21	.50	194.25	.....	.....	.....
Walton	*62.25	62.25	.50	317.50	.....	.....	.....

* Mileage in 1917.

HASKELL COUNTY.

Commissioners: W. H. Tebo, V. S. Paddack, and J. R. Hale.

County Funds.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
General county road fund	$4,726.43	$1,671.08	$3,055.35	$6,929.44	$3,756.50	$3,172.94
County motor vehicle license fund	2,305.25	126.50	2,178.75	2,764.85	834.37	1,930.48
Donations, subscriptions, etc.	.....	.....	.....	.....	.....	.....
Total road funds	$7,031.68	$1,797.58	$5,234.10	$9,694.29	$4,590.87	$5,103.42
Total bridge funds	494.30	.....	494.30	494.30	420.73	73.57
Grand total	$7,525.98	$1,797.58	$5,728.40	$10,188.59	$5,011.60	$5,176.99

TOWNSHIP ROAD, BRIDGE, DRAG AND POLL-TAX FUNDS.

Townships.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
Dudley	$667.03	$158.90	$508.13	$779.73	$86.00	$693.73
Haskell	687.77	243.15	444.62	1,066.26	146.00	920.26
Lockport	1,832.59	1,146.45	686.14	3,016.22	2,190.68	825.54
Total	$3,187.39	$1,548.50	$1,638.89	$4,862.21	$2,422.68	$2,439.53

COST OF DRAGGING EARTH ROADS.

	Total mileage.	1917.			1918.		
		Number of miles dragged.	Average cost one round trip.	Total cost.	Number of miles dragged.	Average cost one round trip.	Total cost.
County roads	78	6	.....	$15.00	66	$0.75	$350.87
Township roads	142	.....	.....	.....	13	.75	36.00
Grand total	220	.....	.....	.....	79	$0.75	$386.87
Dudley	27	.....	.....	.....	.....	.....	.....
Haskell	4	.....	.....	.....	.....	.....	.....
Lockport	67	.....	.....	.....	13	$0.75	$36.00

HODGEMAN COUNTY.

Commissioners: J. W. Housman, N. P. Rasmussen, and I. E. Fail.

County Funds.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance	Total receipts.	Total expenditures.	Balance.
General county road fund	$10,798.00	$4,161.00	$6,637.00	$4,920.64	$4,686.48	$234.16
County motor vehicle license fund	4,882.25	4,272.32	609.93	257.77	257.77	.....
Donations, subscriptions, etc	.....	.....	.....	.....	.....	.....
Total road funds	$15,680.25	$8,433.32	$7,246.93	$5,178.41	$4,944.25	$234.16
Total bridge funds	.....	.....	.....	.....	.....	.....
Grand total	.....	.....	.....	.....	.....	.....

TOWNSHIP ROAD, BRIDGE, DRAG AND POLL-TAX FUNDS.

Townships.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
Benton	$861.28	$356.95	$504.33	.....	.....	.....
Center	2,604.67	910.00	1,694.67	.....	.....	.....
Hallet	651.88	513.89	137.99	.....	.....	.....
Marena	2,992.49	2,381.28	611.21	.....	.....	.....
North Roscoe	60.75	60.75	.....	.....	.....	.....
Saw Log	765.25	765.25	.....	.....	.....	.....
South Roscoe	1,515.36	1,496.73	18.63	.....	.....	.....
Sterling	250.83	250.83	.....	.....	.....	.....
Valley	61.58	5.33	56.25	.....	.....	.....
Total	$9,764.09	$6,741.01	$3,023.08	.....	.....	.....

COST OF DRAGGING EARTH ROADS.

	Total mileage.	1917.			1918.		
		Number of miles dragged.	Average cost one round trip.	Total cost.	Number of miles dragged.	Average cost one round trip.	Total cost.
County roads	89.5	50	$0.60	$117.00	.....	.....	.....
Township roads	410.5	.....	.....	.....	.....	.....	.....
Grand total	500	.....	.....	.....	.....	.....	.....
Benton	*40	.....	.....	.....	.....	.....	.....
Center	*164	.....	.....	.....	.....	.....	.....
Hallet	*74	.....	.....	.....	.....	.....	.....
Marena	*156	.....	.....	.....	.....	.....	.....
North Roscoe	*72	.....	.....	.....	.....	.....	.....
Saw Log	*85	.....	.....	.....	.....	.....	.....
South Roscoe	.....	.....	.....	.....	.....	.....	.....
Sterling	*148 5	.....	.....	.....	.....	.....	.....
Valley	*44	.....	.....	.....	.....	.....	.....

* Mileage in 1917.

JACKSON COUNTY.

Commissioners: Philip Fricker, J. P. Duffy, and F. W. Hall.

County Funds.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
General county road fund*	$17,692.27	$17,513.90	$178.37	.....	.....	.....
County motor vehicle license fund	7,074.40	2,732.09	4,342.31	.....	.....	.....
Donations, subscriptions, etc.	.....	.....	.....	.....	.....	.....
Total road funds	$24,766.67	$20,245.99	$4,520.68	.....	.....	.....
Total bridge funds	.....	.....	.....	$23,144.88	$35,024.94	*$11,880.06*
Grand total	$24,766.67	$20,245 99	$4,520 68	$23,144.88	$35,024.94	*$11,880.06*

* Includes bridges.

TOWNSHIP ROAD, BRIDGE, DRAG AND POLL-TAX FUNDS.

Townships.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
Adrian	.....	.....	.....	.....	.....	.....
Banner	.....	.....	.....	.....	.....	.....
Cedar	.....	.....	.....	.....	.....	.....
Douglas	.....	.....	.....	.....	.....	.....
Franklin	.....	.....	.....	$4,220.70	$1,471.00	$2,749.70
Garfield	.....	.....	.....	3,095.18	854.64	2,240.54
Grant	.....	.....	.....	.....	.....	.....
Jefferson	.....	.....	.....	.....	.....	.....
Liberty	.....	.....	.....	4,075.73	1,350.15	2,725.58
Lincoln	.....	.....	.....	.....	.....	.....
Netawaka	.....	.....	.....	.....	.....	.....
Soldier	.....	.....	.....	.....	.....	.....
Straight Creek	.....	.....	.....	.....	.....	.....
Washington	.....	.....	.....	.....	.....	.....
Whiting	.....	.....	.....	$6,895.84	$5,528.40	$1,367.44
Total	.....	.....	.....	$18,287.45	$9,204.19	$9,083.26

COST OF DRAGGING EARTH ROADS.

	Total mileage.	1917.			1918.		
		Number of miles dragged.	Average cost one round trip.	Total cost.	Number of miles dragged.	Average cost one round trip.	Total cost.
County roads	175	184	$0.70	$2,594.88	.....	.....	.....
Township roads	1,021	.....	.....	.....	100	$1.21	$585.97
Grand total	1,196	.....	.....	.....	.....	.....	.....
Adrian	.....	.....	.....	.....	.....	.....	.....
Banner	.....	.....	.....	.....	.....	.....	.....
Cedar	.....	.....	.....	.....	.....	.....	.....
Douglas	.....	.....	.....	.....	.....	.....	.....
Franklin	.....	.....	.....	.....	20	$0.50	$120.00
Garfield	.....	.....	.....	.....	33	.75	$272.25
Grant	.....	.....	.....	.....	.....	.....	.....
Jefferson	59.5	.....	.....	.....	30	3.00	$120.00
Liberty	48	.....	.....	.....	17	.60	73.72
Lincoln	.....	.....	.....	.....	.....	.....	.....
Netawaka	.....	.....	.....	.....	.....	.....	.....
Soldier	.....	.....	.....	.....	.....	.....	.....
Straight Creek	.....	.....	.....	.....	.....	.....	.....
Washington	.....	.....	.....	.....	.....	.....	.....
Whiting	.....	.....	.....	.....	.....	.....	.....

JEFFERSON COUNTY.

Commissioners: H. H. Kimmel, E. M. Reckards, and H. D. Gramse.

County Funds.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures	Balance.
General county road fund	.....	.....	.....	$9,568.51	$5,112.44	$4,456.07
County motor vehicle license fund	.....	.....	.....	11,091.76	6,709.66	4,382.10
Donations, subscriptions, etc	.....	.....	.....	.....	.....	.....
Total road funds	.....	.....	.....	$20,660.27	$11,822.10	$8,838.17
Total bridge funds	$15,947.57	$7,374.61	$8,572.96	15,944.57	11,030.41	4,914.16
Grand total	.....	.....	.....	$36,604.84	$22,852.51	$13,752.33

TOWNSHIP ROAD, BRIDGE, DRAG AND POLL-TAX FUNDS.

Townships.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
Delaware	$10,086.59	$8,457.65	$1,628.94	.....	.....	.....
Fairview	1,599.17	1,070.57	528.60	.....	.....	.....
Jefferson	6,075.22	4,636.29	1,438.93	.....	.....	.....
Kaw	2,871.17	1,894.07	977.10	.....	.....	.....
Kentucky	3,348.36	3,090.16	258.20	.....	.....	.....
Norton	2,999.52	4,343.97	*1,344.45*	.....	.....	.....
Oskaloosa	3,114.65	2,872.30	242.35	.....	.....	.....
Osawkie	3,865.12	3,153.09	712.03	.....	.....	.....
Rock Creek	4,028.92	2,279.51	1,749.41	.....	.....	.....
Rural	3,235.10	3,231.25	3.85	.....	.....	.....
Sarcoxie	2,486.65	1,762.24	724.41	.....	.....	.....
Union	4,549.20	3,420.90	1,128.30	.....	.....	.....
Total	$48,259.67	$40,212.00	$8,047.67	.....	.....	.....

COST OF DRAGGING EARTH ROADS.

	Total mileage.	1917.			1918.		
		Number of miles dragged.	Average cost one round trip.	Total cost.	Number of miles dragged.	Average cost one round trip.	Total cost.
County roads	132	.....	.....	.....	.....	$0.75	$2,014.21
Township roads	968	.....	.....	.....	.....	.....	.....
Grand total	1,100	.....	.....	.....	.....	.....	.....
Delaware	*134.25	.....	.....	.....	.....	.....	.....
Fairview	*53.5	.....	.....	.....	.....	.....	.....
Jefferson	*122	.....	.....	.....	.....	.....	.....
Kaw	*65.5	.....	.....	.....	.....	.....	.....
Kentucky	*55	.....	.....	.....	.....	.....	.....
Norton	*76	.....	.....	.....	.....	.....	.....
Oskaloosa	*92.5	.....	.....	.....	.....	.....	.....
Osawkie	*66.75	.....	.....	.....	.....	.....	.....
Rock Creek	*105	.....	.....	.....	.....	.....	.....
Rural	*42.5	.....	.....	.....	.....	.....	.....
Sarcoxie	*58.5	.....	.....	.....	.....	.....	.....
Union	*67.5	.....	.....	.....	.....	.....	.....

* Mileage in 1917.

JEWELL COUNTY.

Commissioners: E. Young, E. E. Duncan, and Jno. Blair.

County Funds.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
General county road fund						
County motor vehicle license fund						
Donations, subscriptions, etc.						
Total road funds						
Total bridge funds						
Grand total						

TOWNSHIP ROAD, BRIDGE, DRAG AND POLL-TAX FUNDS.

Townships.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
Allen	$2,985.09	$2,540.89	$444.20			
Athens	1,552.61	44.00	1,508.61			
Brown's Creek						
Buffalo	7,245.31	1,873.95	5,371.36			
Burr Oak	5,263.28	460.96	4,802.32			
Calvin						
Center	13,282.43	9,898.12	3,384.31			
Erving	1,569.60	616.50	953.10			
Esbon						
Grant	5,834.55	909.96	4,924.59			
Harrison						
Highland	2,231.88		2,231.88			
Holmwood						
Ionia	2,509.51	1,114.29	1,395.22			
Jackson	2,204.11	200.00	2,004.11			
Limestone	2,753.74	805.71	1,948.03			
Montana	2,078.38	880.80	1,197.58			
Odessa	1,561.58	500.00	1,061.58			
Prairie						
Richland	2,002.02	263.14	1,738.88			
Sinclair						
Vicksburg	2,057.73	375.30	1,682.43			
Walnut	3,711.96	277.25	3,434.71			
Washington	3,373.38	950.70	2,422.68			
White Mound	1,303.11	1,397.21	94.10			
Total	$63,520.27	$23,108.78	$40,411.49			

COST OF DRAGGING EARTH ROADS.

	Total mileage.	1917.			1918.		
		Number of miles dragged.	Average cost one round trip	Total cost.	Number of miles dragged.	Average cost one round trip.	Total cost.
County roads	245				247	$0.50	$2,483.00
Township roads	1,566						
Grand total	1,811						
Allen							
Athens							
Brown's Creek							
Buffalo							

JEWELL COUNTY—CONCLUDED.

	Total mileage.	1917.			1918.		
		Number of miles dragged.	Average cost one round trip.	Total cost.	Number of miles dragged.	Average cost one round trip.	Total cost.
Burr Oak							
Calvin							
Center							
Erving							
Esbon							
Grant							
Harrison							
Highland							
Holmwood							
Ionia							
Jackson							
Limestone							
Montana							
Odessa							
Prairie							
Richland							
Sinclair							
Vicksburg							
Walnut							
Washington							
White Mound							

JOHNSON COUNTY.

Commissioners: J. W. Jones, Geo. Ellis, and W. T. Turner.

County Funds.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
General county road fund	.....	.....	.....	$64,406.36	$21,611.24	$42,795.12
County motor vehicle license fund	.....	.....	.....	6,214.71	915.13	5,299.58
Donations, subscriptions, etc	.....	.....	.....	.....	.....	.....
Total road funds	.....	.....	.....	$70,621 07	$22,526.37	$48,094.70
Total bridge funds	.....	.....	.....	22,608.00	16,865.78	5,742.22
Grand total	.....	.....	.....	$93,229.07	$39,392.15	$53,836.92

TOWNSHIP ROAD, BRIDGE, DRAG AND POLL-TAX FUNDS.

Townships.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
Aubry	.....	.....	.....	.....	.....	.....
Gardner	.....	.....	.....	.....	.....	.....
Lexington	.....	.....	.....	.....	.....	.....
McCamish	.....	.....	.....	.....	.....	.....
Mission	.....	.....	.....	.....	.....	.....
Monticello	.....	.....	.....	.....	.....	.....
Olathe	.....	.....	.....	.....	.....	.....
Oxford	.....	.....	.....	.....	.....	.....
Shawnee	.....	.....	.....	.....	.....	.....
Spring Hill	.....	.....	.....	.....	.....	.....
Total	.....	.....	.....	.....	.....	.....

COST OF DRAGGING EARTH ROADS.

	Total mileage.	1917.			1918.		
		Number of miles dragged.	Average cost one round trip.	Total cost.	Number of miles dragged.	Average cost one round trip.	Total cost.
County roads	97	.....	.....	.....	90	$0.75	$915.13
Township roads	918	.....	.....	.....	.....	.....	.....
Grand total	1,015	.....	.....	.....	.....	.....	.....
Aubry	.....	.....	.....	.....	.....	.....	.....
Gardner	.....	.....	.....	.....	.....	.....	.....
Lexington	.....	.....	.....	.....	.....	.....	.....
McCamish	.....	.....	.....	.....	.....	.....	.....
Mission	.....	.....	.....	.....	.....	.....	.....
Monticello	.....	.....	.....	.....	.....	.....	.....
Olathe	.....	.....	.....	.....	.....	.....	.....
Oxford	.....	.....	.....	.....	.....	.....	.....
Shawnee	.....	.....	.....	.....	.....	.....	.....
Spring Hill	.....	.....	.....	.....	.....	.....	.....

KEARNY COUNTY.

Commissioners: W. H. Tebo, V. S. Paddack, and J. R. Hale.

County Funds.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
General county road fund	$7,573.56	$7,203.08	$370.48	$3,392.97	$2,962.59	$430.38
County motor vehicle license fund	2,219.51	1,308.19	911.32	2,082.92	986.84	1,096.08
Donations, subscriptions etc.	.....	.....	.....	.....	.....	.....
Total road funds	$9,793.07	$8,511.27	$1,281.80	$5,475.89	$3,949.43	$1,526.46
Total bridge funds	.....	.....	.....	3,052.96	1,512.85	1,540.11
Grand total	.....	.....	.....	$8,528.85	$5,462.28	$3,066.56

TOWNSHIP ROAD, BRIDGE, DRAG AND POLL-TAX FUNDS.

Townships.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
Deerfield	.....	.....	.....	$1,195.89	$718.79	$477.10
Hartland	.....	.....	.....	465.74	90.00	375.74
Hibbard	.....	.....	.....	1,335.07	159.00	1,176 07
Kendall	.....	.....	.....	858.30	407 85	450.45
Lakin	.....	.....	.....	1,903.28	1,377.71	525.57
South Side	.....	.....	.....	1,723.98	475.13	1,248.85
Total	.....	.....	.....	$7,482.26	$3,228.48	$4,253.78

COST OF DRAGGING EARTH ROADS.

	Total mileage.	1917.			1918.		
		Number of miles dragged.	Average cost one round trip.	Total cost.	Number of miles dragged.	Average cost one round trip	Total cost.
County roads	70	36	*$0.575	$451.73	52.8	$0.75	$986.84
Township roads	446	.....	.....	.....	.....	.....	38.80
Grand total	516	.....	.....	.....	.....	.....	$1,025.64
Deerfield	63	.....	.....	.....	18	$0.75	$40.50
Hartland	74	.....	.....	.....	.....	.....	.....
Hibbard	156	.....	.....	.....	.....	.....	.....
Kendall	40	.....	.....	.....	3	.97	16.50
Lakin	46	.....	.....	.....	.....	.....	3.60
South Side	67	.....	.....	.....	.....	.90	28.20

* Average two or more systems of dragging.

KINGMAN COUNTY.

Commissioners: C. W. Whitelaw, S. M. Smart, and Chas. Dodge.

County Funds.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
General county road fund				$18,933.05	$25,327.33	*$6,394.28*
County motor vehicle license fund						
Donations, subscriptions, etc						
Total road funds				$18,933.05	$25,327.33	*$6,394.28*
Total bridge funds				25,217.06	28,366.57	*3,149.51*
Grand total				$44,150.11	$53,693.90	*$9,543.79*

TOWNSHIP ROAD, BRIDGE, DRAG AND POLL-TAX FUNDS.

Townships.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
Allen						
Belmont						
Bennett				$6,312.46	$2,938.52	$3,373.94
Canton						
Chikaskia				2,327.83	2,125.62	202.21
Dale						
Dresden						
Eagle						
Eureka				1,260.90	1,047.19	213.71
Evan						
Galesburg						
Hoosier						
Kingman						
Liberty						
Ninnescah						
Peters				309.00	148.00	161.00
Richland						
Rochester						
Rural						
Union						
Valley						
Vinita						
White						
Total				$10,210.19	$6,259.33	$3,950.86

COST OF DRAGGING EARTH ROADS.

	Total mileage.	1917.			1918.		
		Number of miles dragged.	Average cost one round trip.	Total cost.	Number of miles dragged.	Average cost one round trip.	Total cost.
County roads	207					$0.75	$1,949.32
Township roads	1,405				17.5	.75	70.25
Grand total	1,612					0.75	$2,019.57
Allen							
Belmont							
Bennett							
Canton							
Chikaskia	56				15	$0.75	$50.00

KINGMAN COUNTY—CONCLUDED.

	Total mileage.	1917.			1918.		
		Number of miles dragged.	Average cost one round trip.	Total cost.	Number of miles dragged.	Average cost one round trip.	Total cost.
Dale							
Dresden							
Eagle							
Eureka					2.5		$20.25
Evan							
Galesburg							
Hoosier							
Kingman							
Liberty							
Ninnescah							
Peters	58						
Richland							
Rochester							
Rural							
Union							
Valley							
Vinita							
White							

KIOWA COUNTY.

Commissioners: I. N. Sneed, Chas. Einsel, and Henry W. Fromme.

County Funds.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
General county road fund**	$6,348.75	$5,919.17	$429.58	$7,250.25	$5,911.31	$1,338.94
County motor vehicle license fund	1,969.25	.....	1,969.25	4,604.24	650.65	3,953.59
Donations, subscriptions etc.	.....	.....	.....	.....	.....	.....
Total road funds	$8,318.00	$5,919.17	$2,398.83	$11,854.49	$6,561.96	$5,292.53
Total bridge funds	.....	.....	.....	.....	10,962.16	*10,962.16*
Grand total	$8,318.00	$5,919.17	$2,398.83	$11,854.49	$17,524.12	$5,669.63

** Includes bridges in 1917.

TOWNSHIP ROAD, BRIDGE, DRAG AND POLL-TAX FUNDS.

Townships.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures	Balance.
Brenham	$1,350.05	$1,087.73	$262.32	$1,925.04	$2,705.23	*$780.19*
Butler	.....	.....	.....	987.29	594.05	393.24
Center	1,377.75	1,087.57	290.18	.....	.....	.....
Garfield	2,017.73	1,849.04	168.69	.....	.....	.....
Glick	4,654.90	4,334.22	320.68	.....	.....	.....
Highland	119.48	116.81	2.67	.....	.....	.....
Kiowa	98.12	97.15	.97	.....	.....	.....
Lincoln	.....	.....	.....	.....	.....	.....
Martin	2,210.81	2,096.37	114.44	5,684.40	873.75	4,810.65
Reeder	129.38	129.38	.....	.....	.....	.....
Union	621.71	497.83	123.88	.....	.....	.....
Ursula	.....	.....	.....	.....	.....	.....
Valley	.....	.....	.....	2,072.45	2,072.45	.....
Wellsford	2,348.89	2,205.38	143.51	.....	.....	.....
Westland	1,278.19	957.47	320.72	256.29	100.72	155.57
Total	$16,207.01	$14,458.95	$1,748.06	$10,925.47	$6,346.20	$4,579.27

COST OF DRAGGING EARTH ROADS.

	Total mileage.	1917.			1918.		
		Number of miles dragged.	Average cost one round trip.	Total cost.	Number of miles dragged.	Average cost one round trip.	Total cost.
County roads	59	.....	.....	.....	.....	.....	.....
Township roads	680	.....	.....	.....	136.5	$0.62	$399.63
Grand total	739	.....	.....	.....	.....	.....	.....
Brenham	*71	.....	.....	.....	68	$0.75	$153.33
Butler	35	.....	.....	.....	3.5	.375	6.00
Center	*59.5	.....	.....	.....	.....	.....	.....
Garfield	*48	.....	.....	.....	.....	.....	.....
Glick	*46.75	.....	.....	.....	.....	.....	.....
Highland	*50.75	.....	.....	.....	.....	.....	.....
Kiowa	*38.75	.....	.....	.....	.....	.....	.....
Lincoln	*28	.....	.....	.....	.....	.....	.....
Martin	*74.75	.....	.....	.....	25	.75	72.00
Reeder	*73.5	.....	.....	.....	.....	.....	.....
Union	*50	.....	.....	.....	.....	.....	.....
Ursula	*78.75	.....	.....	.....	.....	.....	.....
Valley	58	.....	.....	.....	.....	.....	.....
Wellsford	*76.5	.....	.....	.....	.....	.....	.....
Westland	45	.....	.....	.....	40	.60	168.30

* Mileage in 1917.

LABETTE COUNTY.

Commissioners: D. S. Romine, C. G. Call, and G. W. Thurston.

County Funds.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
General county road fund	$41,110.14	$20,224.35	$20,885.79	$77,734.44	$17,370.98	$60,363.46
County motor vehicle license fund	10,524.50	3,389.25	7,135.25	16,164.13	5,655.66	10,508.47
Donations, subscriptions, etc.	.....	.....	.....	.....	.....	.....
Total road funds	$51,634.64	$23,613.60	$28,021.04	$93,898 57	$23,026 64	$70,871.93
Total bridge funds	40,492.93	37,033.43	3,459.50	41,776 61	31,673.61	10,103.00
Grand total	$92,127 57	$60,647.03	$31,480.54	$135,675 18	$54,700.25	$80,974.93

TOWNSHIP ROAD, BRIDGE, DRAG AND POLL-TAX FUNDS.

Townships.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
Canada	$1,976.73	$996.62	$980.11	$3,714.18	$3,215.72	$498.46
Elm Grove	2,062.56	1,192.62	869 94	4,087.48	3,025.14	1,062.34
Fairview	1,540.17	913.70	626.47	3,244 04	1,901 95	1,342.09
Hackberry	.....	.....	.....	2,804.98	2,720.00	84 98
Howard	2,605 87	1,334.95	1,270.92	5,611 80	3,176 11	2,435 69
Labette	904.21	448.45	455.76	1,979.22	1,144.56	834 66
Liberty	1,495 66	1,441.66	54.00	2,285.25	1,402.26	882.99
Montana	735.50	431.89	303.61	2,473.03	1,021.20	1,451.83
Mound Valley	.....	.....	.....	7,102.80	6,104.66	998.14
Mt. Pleasant	1,362.96	778.65	584.31	2,083.91	1,370.35	713.56
Neosho	1,155.29	1,103.54	51.75	2,699.62	1,425.10	1,274.52
North	.....	.....	.....	6,796.25	3,240.23	3,556.02
Osage	1,652.31	1,517.31	135.00	1,996.44	1,966.00	30.44
Oswego	2,147.47	2,073.22	74.25	3,340.90	1,302.50	2,038.40
Richland	1,883.83	1,293.74	590.09	3,589.35	795.30	2,794.05
Walton	.....	.....	.....	3,049.78	1,772.41	1,277.37
Total	$19,522.56	$13,526 35	$5,996 21	$56,859.03	$35,583.49	$21,275.54

COST OF DRAGGING EARTH ROADS.

	Total mileage.	1917.			1918.		
		Number of miles dragged.	Average cost one round trip.	Total cost.	Number of miles dragged.	Average cost one round trip.	Total cost.
County roads	188	144.25	$0.75	$3,498 10	188	$0.75	$5,068.21
Township roads	1,202	475	.586	2,298.65	473	.71	3,986.06
Grand total	1,390	619 25	0 668	$5,796 75	661	0.73	$9,054.27
Canada	74.5	28	$0.50	$150.55	34	$0.50	.....
Elm Grove	93.5	25	1.30	103.30	33	.75	$377.40
Fairview	58.5	45	.50	183.85	45	.75	434.29
Hackberry	89.5	35	.....	192.50	.....	.....	.....
Howard	77	24	.....	†.....	25	.75	175.09
Labette	64.5	40	.50	200 00	40	.75	260.00
Liberty	60	.....	.....	.....	35	.75	204.06
Montana	40	30	.50	71 00	30	.50	177.13
Mound Valley	114	40	.65	400.00	50	.75	550 00
Mt Pleasant	59	38	.50	150 00	40	.75	550 60
Neosho	43	43	.50	21.62	40	.75	132.45
North	57	35	.50	.....	35	.75	422.46
Osage	117.5	.....	.....	.....	.....	.....	.....
Oswego	36	26	.50	294 12	.....	.....	.....
Richland	57.5	30	.50	224 80	30	.75	280 50
Walton	64.5	26	....	316 91	36	75	422 26

† Dragged free.

LANE COUNTY.

Commissioners: J. C. Tyner, Patrick Murphy, and G. C. Biggs.

County Funds.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
General county road fund	.....	.....	.....	$4,868.02	$6,397.25	$1,529.23
County motor vehicle license fund	.....	.....	.....	3,097.10	544.00	2,553.10
Donations, subscriptions, etc	.....	.....	.....	.....	.....	.....
Total road funds	.....	.....	.....	$7,965.12	$6,941.25	$1,023.87
Total bridge funds	.....	.....	.....	.....	.....	.....
Grand total	.....	.....	.....	.....	.....	.....

TOWNSHIP ROAD, BRIDGE, DRAG AND POLL-TAX FUNDS.

Townships.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
Alamota	.....	.....	.....	.....	.....	.....
Blaine	.....	.....	.....	.....	.....	.....
Cheyenne	.....	.....	.....	.....	.....	.....
Cleveland	.....	.....	.....	.....	.....	.....
Dighton	.....	.....	.....	.....	.....	.....
Spring Creek	.....	.....	.....	.....	.....	.....
Sutton	.....	.....	.....	.....	.....	.....
White Rock	.....	.....	.....	.....	.....	.....
Wilson	.....	.....	.....	.....	.....	.....
Total	.....	.....	.....	.....	.....	.....

COST OF DRAGGING EARTH ROADS.

	Total mileage.	1917.			1918.		
		Number of miles dragged.	Average cost one round trip.	Total cost.	Number of miles dragged.	Average cost one round trip.	Total cost.
County roads	112	.....	.....	.....	.....	.....	.....
Township roads	151	.....	.....	.....	.....	.....	.....
Grand total	263	.....	.....	.....	.....	.....	.....
Alamota	.....	.....	.....	.....	.....	.....	.....
Blaine	.....	.....	.....	.....	.....	.....	.....
Cheyenne	.....	.....	.....	.....	.....	.....	.....
Cleveland	.....	.....	.....	.....	.....	.....	.....
Dighton	.....	.....	.....	.....	.....	.....	.....
Spring Creek	.....	.....	.....	.....	.....	.....	.....
Sutton	.....	.....	.....	.....	.....	.....	.....
White Rock	.....	.....	.....	.....	.....	.....	.....
Wilson	.....	.....	.....	.....	.....	.....	.....

LEAVENWORTH COUNTY.

Commissioners: Geo. Roe, Harold C. Short, and Ernest Eberth.

County Funds.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
General county road fund	.....	.....	.....	$13,199.35	$13,168.55	$30.80
County motor vehicle license fund	.....	.....	.....	12,464.10	3,723.71	8,740.39
Donations, subscriptions, etc	.....	.....	.....	.....	.....	.....
Total road funds	.....	.....	.....	$25,663.45	$16,892.26	$8,771.19
Total bridge funds	.....	.....	.....	35,198.28	23,733.91	11,464.37
Grand total	.....	.....	.....	$60,861.73	$40,626.17	$20,235.56

TOWNSHIP ROAD, BRIDGE, DRAG AND POLL-TAX FUNDS.

Townships.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
Alexandria	.....	.....	.....	$3,621.18	$2,210.65	$1,410.53
Delaware	.....	.....	.....	6,403.32	5,271.04	1,132.28
Easton	.....	.....	.....	5,782.15	4,160.47	1,621.68
Fairmount	.....	.....	.....	3,736.38	3,274.63	461.75
High Prairie	.....	.....	.....	4,144.30	1,882.88	2,261.42
Kickapoo	.....	.....	.....	7,563.97	3,814.57	3,749.40
Reno	.....	.....	.....	7,368.40	7,368.40	.....
Sherman	.....	.....	.....	9,340.71	4,258.15	5,082.56
Stranger	.....	.....	.....	5,644.74	4,466.18	1,178.56
Tonganoxie	.....	.....	.....	10,121.13	3,747.26	6,373.87
Total	.....	.....	.....	$63,726.28	$40,454.23	$23,272.05

COST OF DRAGGING EARTH ROADS.

	Total mileage.	1917.			1918.		
		Number of miles dragged.	Average cost one round trip.	Total cost.	Number of miles dragged.	Average cost one round trip.	Total cost.
County roads	136	.....	.....	.....	135.75	$0.75	$3,723.71
Township roads	749	.....	.....	.....	699	.75	4,039.80
Grand total	885	.....	.....	.....	834.75	$0.75	$7,763.51
Alexandria	.....	.....	.....	.....	49	$0.75	$217.37
Delaware	.....	.....	.....	.....	110	.75	334.74
Easton	.....	.....	.....	.....	80	.75	325.00
Fairmount	.....	.....	.....	.....	45	.75	538.23
High Prairie	54	.....	.....	.....	54	.75	495.89
Kickapoo	79.5	.....	.....	.....	78	.75	543.50
Reno	63	.....	.....	.....	63	.75	416.02
Sherman	80	.....	.....	.....	80	.75	262.50
Stranger	.....	.....	.....	.....	80	.75	436.00
Tonganoxie	.....	.....	.....	.....	60	.75	470.55

LINCOLN COUNTY.

Commissioners: E. W. Tozier, J. E. Hunter, and E. C. Pugh.

County Funds.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
General county road fund	$13,982.33	$10,758.12	$3,224.21	$13,589.90	$8,084.32	$5,505.58
County motor vehicle license fund	3,361.50	.....	3,361.50	6,897.75	1,728.95	5,168.80
Donations, subscriptions, etc.	.....	.....	.....	.....	.....	.....
Total road funds	$17,343.83	$10,758.12	$6,585.71	$20,487.65	$9,813.27	$10,674.38
Total bridge funds	19,180.05	14,085.59	5,094.46	12,011.04	10,180.09	1,830.95
Grand total	$36,523.88	$24,843.71	$11,680.17	$32,498.69	$19,993.36	$12,505.33

TOWNSHIP ROAD, BRIDGE, DRAG AND POLL-TAX FUNDS.

Townships.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
Battle Creek	$1,318.11	$327.38	$990.73	$1,751.05	$865.60	$885.45
Beaver	.....	.....	.....	1,063.98	112.05	951.93
Cedron	.....	.....	.....	1,750.97	551.97	1,199.00
Colorado	2,645.57	238.00	2,407.57	3,909.00	327.65	3,581.35
Elkhorn	1,649.37	1,605.86	43.51	1,410.94	464.75	946.19
Franklin	1,200.00	1,148.03	51.97	1,509.78	839.52	670.26
Golden Belt	861.00	817.36	43.64	945.58	558.75	386.83
Grant	2,015.81	1,795.81	220.00	888.94	439.75	449.19
Hanover	652.15	326.05	326.10	1,105.08	502.05	603.03
Highland	780.73	643.30	137.43	1,930.97	585.15	1,345.82
Indiana	.....	.....	.....	1,423.53	1,135.47	288.06
Logan	1,450.77	329.85	1,120.92	2,347.99	581.48	1,766.51
Madison	1,146.00	513.86	632.14	3,115.28	624.79	2,490.49
Marion	.....	.....	.....	782.55	366.65	415.90
Orange	1,861.25	683.34	1,177.91	1,438.02	373.29	1,064.73
Pleasant	1,942.03	40.58	1,901.45	2,617.21	1,665.56	951.65
Salt Creek	1,327.80	433.14	894.66	2,038.83	561.10	1,477.73
Scott	1,395.79	1,345.63	50.16	2,148.96	957.75	1,191.21
Valley	.....	.....	.....	1,889.67	877.77	1,011.90
Vesper	1,135.54	371.80	763.74	1,313.02	754.66	558.36
Total	$21,381.92	$10,619.99	$10,761.93	$35,381.35	$13,145.76	$22,235.59

COST OF DRAGGING EARTH ROADS.

	Total mileage.	1917.			1918.		
		Number of miles dragged.	Average cost one round trip.	Total cost.	Number of miles dragged.	Average cost one round trip.	Total cost.
County roads	210	210	$0.60	$615.96	180	$0.75	$1,728.95
Township roads	1,093	521.2	.527	764.26	391.8	.54	1,276.27
Grand total	1,303	731.2	$0.564	$1,380.22	571.8	$0.645	$3,005.22
Battle Creek	62	6	$0.50	$9.00	18	$0.50	$43.30
Beaver	62	.....	.....	.....	15.4	.50	33.55
Cedron	62	.....	.....	.....	6	.50	3.00
Colorado	*19	19	.50	40.00	19	.60	76.35
Elkhorn	54	50	.50	100.00	40	.50	140.47
Franklin	80.25	80.25	.50	88.50	.....	.....	.....
Golden Belt	64	20	.50	15.00	9	.50	21.43
Grant	*50.25	50.25	.50	45.00	15.4	.50	33.55

* Mileage in 1917.

LINCOLN COUNTY—CONCLUDED.

	Total mileage.	1917.			1918.		
		Number of miles dragged.	Average cost one round trip.	Total cost.	Number of miles dragged.	Average cost one round trip.	Total cost.
Hanover	*51	14	$0.50	$7.00	10	$0.50	$34.75
Highland	49	49	.50	100.30	28	.75	114.51
Indiana	49	.....	.50	38.11	35	.50	99.78
Logan	51.5	.....	.....	.....	8	.50	17.55
Madison	53	14	.50	10.50	20	.50	45.44
Marion	67	.....	.....	.....	10	.50	31.05
Or n e	59	59	.....	150.0'	22	.50	56.48
Pleasant	51	51	.60	88.50	25	.75	186.54
Salt Creek	54	.....	.....	.....	11	.50	27.75
Scott	62	61.7	.75	46.31	44	.60	159.32
Valley	46	.....	.....	.....	26	.50	57.80
Vesper	47	47	.50	26.00	30	.60	103.05

LINN COUNTY.

Commissioners: O. M. Priser, E. G. Perrine, and Harry Curry.

County Funds.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
General county road fund	$25,190.44	$6,536.29	$18,654.15	.....	.....	.....
County motor vehicle license fund	6,919.05	1,337.70	5,581.35	.....	.....	.....
Donations, subscriptions, etc	.....	.....	.....	.....	.....	.....
Total road funds	$32,109.49	$7,873.99	$24,235.50	.....	.....	.....
Total bridge funds	.....	.....	.....	.....	.....	.....
Grand total	$32,109.49	$7,873.99	$24,235.50	.....	.....	.....

TOWNSHIP ROAD, BRIDGE, DRAG AND POLL-TAX FUNDS.

Townships.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
Blue Mound	$3,073 31	$3,000.00	$73.31	$3,389.75	$2,401.15	$988.60
Centerville	4,646.58	4,036.17	610.41	4,058.86	2,229.50	1,829.36
Liberty	.....	.....	.....	.....	.....	.....
Lincoln	.....	.....	.....	.....	.....	.....
Mound City	2,808.49	2,529.27	279.22	.....	.....	.....
Paris	3,849 81	3,611 33	238.48	.....	.....	.....
Potosi	3,166 95	2,486.37	680.58	4,287.55	956.95	3,330.60
Scott	2,962.96	2,193.87	769.09	.....	.....	.....
Sheridan	2,736.48	1,652.27	1,084 21	.....	.....	.....
Stanton	833.00	1,183.03	350.03	.....	.....	.....
Valley	.....	.....	.....	.....	.....	.....
Total	$24,077.58	$20,692.31	$3,385 27	$11,736 16	$5,587.60	$6,148.56

COST OF DRAGGING EARTH ROADS.

	Total mileage.	1917.			1918.		
		Number of miles dragged.	Average cost one round trip.	Total cost.	Number of miles dragged.	Average cost one round trip.	Total cost.
County roads	146	.....	.....	.....	.....	.....	.....
Township roads	774	561.2	$0 627	$1,236.90	.....	.....	.....
Grand total	920	.....	.....	.....	.....	.....	.....
Blue Mound	.....	35	$0.75	$225.00	.....	.....	.....
Centerville	149	39.5	.55	21.85	.....	.....	.....
Liberty	.....	100	.75	416.00	.....	.....	.....
Lincoln	.....	42	.50	212.00	.....	.....	.....
Mound City	.....	20	.75	45.00	.....	.....	.....
Paris	.....	167.2	.50	81.90	.....	.....	.....
Potosi	.....	.....	.....	.....	.....	.....	.....
Scott	.....	.....	.....	.....	.....	.....	.....
Sheridan	.....	50	.50	154.15	.....	.....	.....
Stanton	.....	72.5	.75	155.00	.....	.....	.....
Valley	.....	35	.60	126 00	.....	.....	.....

LOGAN COUNTY.

Commissioners: W. A. Gridley, Jno. T. Lowe, and Z. B. Warren.

County Funds.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
General county road fund	.....	.....	.....	$2,913.25	$1,946.92	$966.33
County motor vehicle license fund	.....	.....	.....	2,328.73	168.40	2,160.33
Donations, subscriptions, etc.	.....	.....	.....	.....	.....	.....
Total road funds	.....	.....	.....	$5,241.98	$2,115.32	$3,126.66
Total bridge funds	.....	.....	.....	2,501.90	1,353.37	1,148.53
Grand total	.....	.....	.....	$7,743.88	$3,468.69	$4,275.19

TOWNSHIP ROAD, BRIDGE, DRAG AND POLL-TAX FUNDS.

Townships.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
Augustine	.....	.....	.....	.....	.....	.....
Elkader	.....	.....	.....	$319.58	$51.06	$268.52
Lees	.....	.....	.....	386.50	374.25	12.25
Logansport	.....	.....	.....	380.64	87.03	293.61
McAllaster	.....	.....	.....	229.64	14.00	215.64
Monument	.....	.....	.....	1,380.24	407.25	972.99
Oakley	.....	.....	.....	358.82	810.10	451.28
Paxton	.....	.....	.....	.....	.....	.....
Russell Springs	.....	.....	.....	545.79	459.30	86.49
Western	.....	.....	.....	229.22	156.59	72.63
Winona	.....	.....	.....	1,473.50	264.76	1,208.74
Total	.....	.....	.....	$5,303.93	$2,624.34	$2,679.59

COST OF DRAGGING EARTH ROADS.

	Total mileage.	1917.			1918.		
		Number of miles dragged.	Average cost one round trip.	Total cost.	Number of miles dragged.	Average cost one round trip.	Total cost.
County roads	91	.....	.....	.....	90.75	$0.70	$226.50
Township roads	442.25	58	$1.00	$47.50	.....	.....	136.75
Grand total	533.25	.....	.....	.....	.....	.....	$363.25
Augustine	26.25	.....	.....	.....	.....	.....	.....
Elkader	24	.....	.....	.....	.....	.....	.....
Lees	32.5	.....	.....	.....	.....	.....	.....
Logansport	15	.....	.....	.....	.....	.....	.....
McAllaster	29	.....	.....	.....	.....	.....	.....
Monument	46	18	.....	$7.50	.....	.....	$6.50
Oakley	87	40	$1.00	40.00	.....	.....	130.25
Paxton	28.5	.....	.....	.....	.....	.....	.....
Russell Springs	86	.....	.....	.....	.....	.....	.....
Western	44	.....	.....	.....	.....	.....	.....
Winona	24	.....	.....	.....	.....	.....	.....

LYON COUNTY.

Commissioners: Frank McCain, C. A. Paine, and Uri Hodson.

County Funds.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
General county road fund.	$43,149.49	$37,635.54	$5,513.95	$31,750.72	$25,085.28	$6,665.44
County motor vehicle license fund	5,389.25	1,082.96	4,306.29	13,500.36	2,323.85	11,176.51
Donations, subscriptions, etc.						
Total road funds	$48,538.74	$38,718.50	$9,820.24	$45,251.08	$27,409.13	$17,841.95
Total bridge funds						
Grand total						

TOWNSHIP ROAD, BRIDGE, DRAG AND POLL-TAX FUNDS.

Townships.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
Agnes City						
Americus						
Center						
Elmendaro						
Emporia						
Freemont						
Ivy						
Jackson						
Pike						
Reading						
Waterloo						
Total						

COST OF DRAGGING EARTH ROADS.

	Total mileage.	1917.			1918.		
		Number of miles dragged.	Average cost one round trip.	Total cost.	Number of miles dragged.	Average cost one round trip.	Total cost.
County roads	220						
Township roads	1,540						
Grand total	1,760						
Agnes City							
Americus							
Center							
Elmendaro							
Emporia							
Freemont							
Ivy							
Jackson							
Pike							
Reading							
Waterloo							

MARION COUNTY.

Commissioners: Jacob A. Unruh, F. A. Loveless, and Jno. G. Snelling.

County Funds.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
General county road fund	$27,403.70	$27,165.71	$237.99	$29,054.53	$17,317.57	$11,736.96
County motor vehicle license fund	11,697.00	5,972.25	5,724.75	21,676.45	13,134.00	8,542.45
Donations, subscriptions, etc.	.....	.....	.....	.....	.....	.....
Total road funds	$39,100 70	$33,137.96	$5,962.74	$50,730.98	$30,451.57	$20,279.41
Total bridge funds	44,192.03	33,137.96	11,054.07	44,263.86	20,349.72	23,914.14
Grand total	$83,292 73	$66,275.92	$17,016.81	$94,994.84	$50,801.29	$44,193.55

TOWNSHIP ROAD, BRIDGE, DRAG AND POLL-TAX FUNDS.

Townships.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
Blaine	$2,361.27	$1,551.59	$809.68	$4,314.13	$2,338.14	$1,975.99
Catlin	4,872.12	3,043.27	1,828.85	4,515 18	3,537 12	978.06
Center	4,830.84	3,900.54	930.30	5,032.82	2,477.49	2,555.33
Clark	2,541.84	1,990.05	551.79	2,930.45	1,577.84	1,352.61
Clear Creek	5,761.22	4,979.14	782.08	6,830.00	3,867.74	2,962.26
Colfax	3,205.26	1,041.21	2,164.05	5,136 23	1,732.94	3,403.29
Doyl	3,324.73	2,352.94	971.79	4,114.21	3,538.22	575.99
Durham Park	2,994.11	2,681.58	312.53	2,202.22	1,531.67	670.55
East Branch	2,579.92	1,537.48	1,042.44	2,356.06	1,368.49	987.57
Fairplay	3,308.52	2,905.74	402.78	4,264.34	3,730.65	533.69
Gale	2,143.18	1,831.67	311.51	2,770.26	1,331.05	1,439.21
Grant	3,002.93	2,389.24	613.69	2,598.21	1,640.95	957.26
Lehigh	2,944.15	2,665.37	278.78	4,953.47	2,210.63	2,742.84
Liberty	2,197.29	1,938.09	259.20	2,982.14	2,521.17	460.97
Logan	1,943.41	1,683.10	260.31	2,354.31	2,521 17	166.86
Lost Springs	3,391.42	2,732 14	659.28	4,669.87	2,922.63	1,747.24
Menno	1,916.84	1,534 10	382.74	2,263.71	1,419.93	843.78
Milton	2,208.76	1,930 26	278.50	2,369.90	1,840 02	529.88
Moore	1,989.83	1,897 81	92.02	1,747.60	1,560.54	187 06
Peabody	5,647.41	4,962.40	685 01	5,475.04	4,695.36	779.68
Risley	4,162.21	3,231.31	930.90	3,331.96	1,513.84	1,818.12
Summit	2,187.28	1,639.59	547 69	2,199.89	1,778.77	421.12
West Branch	1,943.45	1,465.63	477.82	2,672.11	1,458.86	1,213.25
Wilson	3,704.47	3,377.30	327.17	2,998.21	1,177.10	1,821.11
Total	$75,162.46	$59,261.55	$15,900.91	$85,082.32	$54,292.32	$30,790.00

COST OF DRAGGING EARTH ROADS.

	Total mileage.	1917.			1918.		
		Number of miles dragged.	Average cost one round trip.	Total cost.	Number of miles dragged.	Average cost one round trip.	Total cost.
County roads	180	180	$1.00	$3,900.00	180	$0.75	$5,000.00
Township roads	1,581	752	.75	3,694.00	717	.75	5,860.00
Grand total	1,761	932	$0.875	$7,614.00	897	$0.75	$10,860.00
Blaine	58	26	$0.75	$100.00	20	$0.75	$200.00
Catlin	57	28	.75	200.00	25	.75	200.00
Center	70	30	.75	140.00	30	.75	250.00
Clark	66	33	.75	165.00	30	.75	240.00
Clear Creek	158	65	.75	300.00	60	.75	450.00
Colfax	62.25	29	.75	100.00	30	.75	300.00

MARION COUNTY—CONCLUDED.

	Total mileage.	1917.			1918.		
		Number of miles dragged.	Average cost one round trip.	Total cost.	Number of miles dragged.	Average cost one round trip.	Total cost.
Doyl	42.5	21	$0.75	$100.00	20	$0.75	$240.00
Durham Park	61	30	.75	165.00	30	.75	250.00
East Branch	40	20	.75	125 00	20	.75	180.00
Fairplay	76	38	.75	175.00	20	.75	100.00
Gale	62	28	.75	150.00	26	.75	260.00
Grant	114	50	.75	175.00	40	.75	200.00
Lehigh	68	31	.75	140.00	30	.75	240.00
Liberty	61	35	.75	230 00	30	.75	240.00
Logan	64	31	.75	90.00	30	.75	120.00
Lost Springs	60.5	30	.75	130.00	30	.75	300.00
Menno	71	35	.75	160 00	30	.75	240.00
Milton	32	16	.75	80.00	16	.75	200.00
Moore	65 75	31	.75	124.00	20	.75	100.00
Peabody	59.5	30	.75	165.00	40	.75	400.00
Risley	60	31	.75	205 00	40	.75	400 00
Summit	*66	33	.75	175 00	30	.75	150.00
West Branch	39	20	.75	120 00	30	.75	300.00
Wilson	62	31	.75	160.00	40	.75	300.00

* Mileage in 1917.

MARSHALL COUNTY.

Commissioners: T. P. O'Neil, Geo. B. Layton, and Jas. Kennedy.

County Funds.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
General county road fund.	$61,896.70	.....	$61,896.70	.....	.....	.....
County motor vehicle license fund	14,869.32	$4,947.85	9,921.47	.....	.....	.....
Donations, subscriptions, etc	.....	.....	.....	.....	.....	.....
Total road funds	$76,766.02	$4,947.85	$71 818.17	.....	.....	.....
Total bridge funds	*72,352.68	71,079.42	1,273.26	*54,654.63	54,869.97	*$215.34*
Grand total	$149,118.70	$76,027 27	$73,091.43	.....	.....	.....

* Used $10,455.98 from general fund and motor vehicle license fund.

TOWNSHIP ROAD, BRIDGE, DRAG AND POLL-TAX FUNDS.

Townships.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
Balderson	.....	.....	.....	$4,810.31	$3,884.03	$926.28
Bigelow	$3,676.85	$2,557.50	$1,119.35	6,291.17	4,269.82	2,021.35
Blue Rapids	.....	.....	.....	3,864.03	3,803.44	60.59
Blue Rapids City	2,461.65	1,364.45	1,097.20	4,396.54	2,026.09	2,370.45
Center	.....	.....	.....	4,516.66	2,329.42	2,187.24
Clear Fork	3,507.88	3,286.71	221.17	3,653.78	3,500.65	153.13
Cleveland	4,479.84	4,420.16	59.68	5,443.07	4,054.83	1,388.24
Cottage Hill	1,744.52	1,695.48	49.04	2,086.43	1,237.35	849.08
Elm Creek	3,816.22	2,785.42	1,030.80	3,496.51	2,681.49	815.02
Franklin	4,724.33	3,580.45	1,143.88	5,783.28	5,317.00	466.28
Guittard	3,690.90	1,417.13	2,273.77	4,948.01	4,514.08	433.93
Herkimer	3,257.15	1,051.90	2,205.25	.....	.....	.....
Lincoln	2,522.59	1,482.29	1,040.30	4,621.96	4,178.70	443.26
Logan	8,244.44	7,219 23	1,025.21	6,268.98	4,037.89	2,231.09
Marysville	5,187.13	3,190.24	1,996.89	6,654.51	3,544.70	3,109.81
Murray	6,515.67	5,809.96	705.71	5,942.02	4,727.25	1,214.77
Noble	3,6 7.65	5,559.98	*1,912.33*	4,452.88	8,839.07	*4,386.19*
Oketo	4,626.76	2,884.76	1,742.00	4,722.92	1,552.95	3,169.97
Richland	3,037 40	2,254.69	782.71	5,788.77	4,800.71	988.06
Rock	.....	.....	.....	4,580.65	4,209.19	371.46
St. Bridget	4,252.84	2,490.06	1,762.78	5,454.36	6,779.75	*1,325.39*
Vermilion	.....	.....	.....	6,711.40	971.88	5,739.52
Walnut	3,344.67	2,434.44	910.23	4,449 99	2,099.66	2,350.33
Waterville	.....	.....	.....	5,607.91	4,070.84	1,537.07
Wells	5,037.27	3,769.88	1,267.39	4,569.27	357.50	4,211.77
Total	$77,775 76	$59,254.73	$18,521 03	$119,115.41	$87,788.29	$31,327.12

COST OF DRAGGING EARTH ROADS.

	Total mileage.	1917.			1918.		
		Number of miles dragged.	Average cost one round trip.	Total cost.	Number of miles dragged.	Average cost one round trip.	Total cost.
County roads	178	.....	$0.60	$5,070.45	183	$0.60	$2,856.82
Township roads	1,624.1	.....	.....	.....	541.62	.71	3,773.77
Grand total	1,702 1	.....	.....	.....	724.62	$0.655	$6,630.59
Balderson	78 75	.....	.....	.....	46	.....	.....
Bigelow	60.75	.....	.....	.....	.....	.....	.....
Blue Rapids	60.75	.....	.....	.....	44	.....	$288.80
Blue Rapids City	47.62	.....	.....	.....	.....	.....	131.15

MARSHALL COUNTY—CONCLUDED.

	Total mileage.	1917.			1918.		
		Number of miles dragged.	Average cost one round trip.	Total cost.	Number of miles dragged.	Average cost one round trip.	Total cost.
Center	65.5	.....	.....	.....	35	$0.60	$167.90
Clear Fork	61.5	.....	.....	.....	30	.60	600.00
Cleveland	68.75	.....	.....	.....	.....	.55	56.10
Cottage Hill	70.62	.....	.....	.....	60	.....	108.00
Elm Creek	58.5	.....	.....	.....	18	.50	72.10
Franklin	65.75	.....	.....	.....	40.5	2.60	212.10
Guittard	59.75	.....	.....	.....	35	.50	122.50
Herkimer	84.5	.....	.....	.....	.....	.....	.....
Lincoln	64	.....	.....	.....	3.5	.....	2.36
Logan	70	.....	.....	.....	44.25	.53	391.35
Marysville	49.87	.....	.....	.....	49.87	.....	181.85
Murray	66.87	.....	.....	.....	.....	.....	282.16
Noble	64.12	.....	.....	.....	.....	.60	239.45
Oketo	67.5	.....	.....	.....	.....	.60	274.45
Richland	72	.....	.....	.....	39.5	.60	202.20
Rock	67.25	.....	.....	.....	35	.60	172.85
St. Bridget	80	.....	.....	.....	40	.50	200.00
Vermilion	56.5	.....	.....	.....	.....	.60	.....
Walnut	64.25	.....	.....	.....	21	.60	68.45
Waterville	56.25	.....	.....	.....	.....	.....	.....
Wells	62.75	.....	.....	.....	.....	.....	.....

McPHERSON COUNTY.

Commissioners: C. G. Flohr, B. F. McGill, and J. J. Krehbiel.

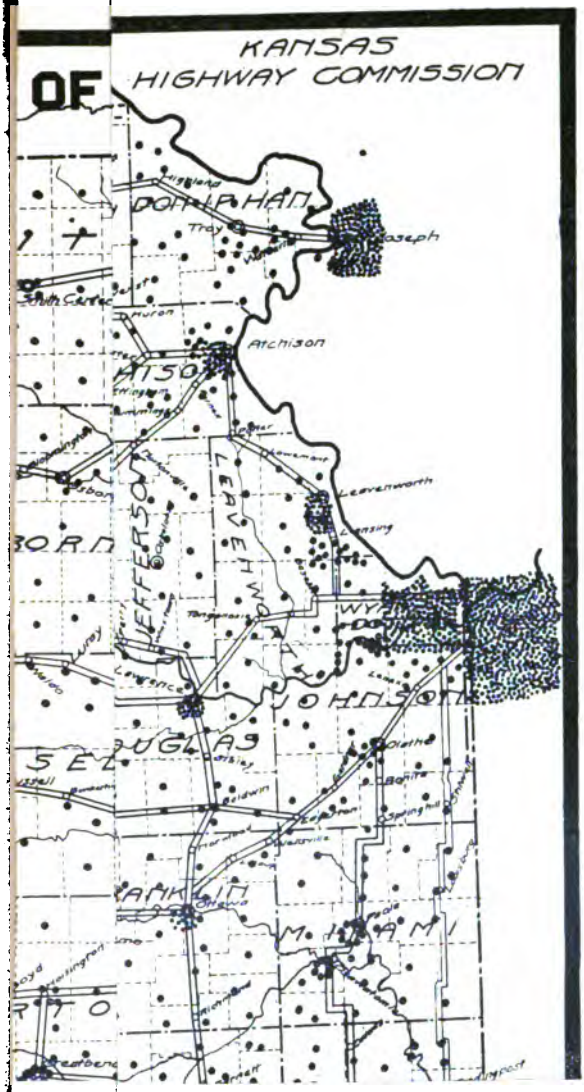
County Funds.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expendit res.	Balance.
General county road fund	*$6,852.45*	$2,379.74	*$9,232.19*	$11,931.06	$13,611.25	*$1,680.19*
County motor vehicle license fund	7,670.00	.....	7,670.00	8,666.59	8,666.59	.....
Donations, subscriptions, etc	.....	.....	.....	.....	.....	.....
Total road funds	$817.55	$2,379.74	*$1,562.19*	$20,597.65	$22,277.84	*$1,680.19*
Total bridge funds	.....	.....	.....	39,277.28	9,893.32	29,383.96
Grand total	.....	.....	.....	$59,874.93	$32,171.16	$27,703.77

TOWNSHIP ROAD, BRIDGE, DRAG AND POLL-TAX FUNDS.

Townships.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
Battle Hill	.....	.....	.....	.....	.....	.....
Bonaville	.....	.....	.....	$2,822.34	$2,230.98	$591.36
Canton	.....	.....	.....	2,769.68	763.31	2,006.37
Castle	.....	.....	.....	2,154.54	1,670.01	484.53
Delmore	.....	.....	.....	1,808.50	1,500.50	308.00
Empire	.....	.....	.....	3,290.75	1,666.86	1,623.89
Groveland	.....	.....	.....	1,572.37	434.00	1,138.37
Gypsum Creek	.....	.....	.....	.....	.....	.....
Harper	.....	.....	.....	2,363.36	1,127.75	1,235.61
Hayes	.....	.....	.....	2,169.40	1,656.65	512.75
Jackson	.....	.....	.....	2,559.35	837.10	1,722.25
King City	.....	.....	.....	2,252.91	2,395.06	*142.15*
Little Valley	.....	.....	.....	2,486.06	1,442.51	1,043.55
Lone Tree	.....	.....	.....	4,241.09	1,693.16	2,547.93
Marquette	.....	.....	.....	3,299.04	847.50	2,451.54
McPherson	.....	.....	.....	3,246.19	1,448.81	1,797.38
Meridian	.....	.....	.....	4,000.45	100.35	3,900.10
Mound	.....	.....	.....	2,864.34	463.10	2,401.24
New Gottland	.....	.....	.....	2,257.22	1,711.40	545.82
Smoky Hill	.....	.....	.....	4,054.03	1,925.95	2,128.08
South Sharps Creek	.....	.....	.....	1,562.58	576.11	986.47
Spring Valley	.....	.....	.....	3,180.78	572.23	2,608.55
Superior	.....	.....	.....	7,145.46	1,860.09	5,285.37
Turkey Creek	.....	.....	.....	2,224.88	1,026.10	1,198.78
Union	.....	.....	.....	2,630.86	1,810.20	820.66
Total	.....	.....	.....	66,956.18	$29,759.73	$37,054.30

COST OF DRAGGING EARTH ROADS.

	Total mileage.	1917.			1918.		
		Number of miles dragged.	Average cost one round trip.	Total cost.	Number of miles dragged.	Average cost one round trip.	Total cost.
County roads	171	141.5	$0.73	$1,376.65	171	$0.97	$2,485.29
Township roads	1,482	.....	.....	.....	520.6	.70	4,090.22
Grand total	1,653	.....	.....	.....	691.6	0.835	$6,575.51
Battle Hill	*65	.....	.....	.....	33.8	$0.50	$33.75
Bonaville	61	.....	.....	.....	50	.....	40.25
Canton	*60 5	.....	.....	.....	.....	.62	132.00
Castle	59	.....	.....	.....	.....	.74	142.49


KANSAS
HIGHWAY COMMISSION
OF
DONIPHAN
Tray
Joseph
Atchison
ATSO
Leavenworth
Lansing
JEFFERSON
LEAVEN
WYANDOTTE
JOHNSON
Lawrence
Olathe
Baldwin
Spring Hill
FRANKLIN
Ottawa
Paola
Mound City

McPHERSON COUNTY—CONCLUDED.

	Total mileage.	1917.			1918.		
		Number of miles dragged.	Average cost one round trip.	Total cost.	Number of miles dragged.	Average cost one round trip.	Total cost.
Delmore	79	.....	.....	.....	26.8	$0.60	$106.20
Empire	66	.....	.....	.....	.....	.75	402.00
Groveland	*73	.....	.....	.....	.....	.....	108.00
Gypsum Creek	*65.25	.....	.....	.....	.....	.....	.....
Harper	*70	.....	.....	.....	16.5	.75	125.50
Hayes	69	.....	.....	.....	64.5	.65	202.80
Jackson	72	.....	.....	.....	31	.57	178.10
King City	*66	.....	.....	.....	.....	.75	162.95
Little Valley	*65	.....	.....	.....	.....	.....	167.66
Lone Tree	*72	.....	.....	.....	50	.50	214.00
Marquette	48	.....	.....	.....	23	1.00	159.75
McPherson	*57	.....	.....	.....	.....	.75	265.12
Meriden	*65	.....	.....	.....	.....	.....	.....
Mound	56	.....	.....	.....	44	.75	290.35
New Gottland	77	.....	.....	.....	38	.75	228.00
Smoky Hill	53	.....	.....	.....	.....	.....	298.20
South Sharps Creek	*64	.....	.....	.....	.....	.....	.....
Spring Valley	66	.....	.....	.....	46	.75	242.50
Superior	60	.....	.....	.....	34	.75	279.10
Turkey Creek	*60	.....	.....	.....	25	.50	100.00
Union	45.5	.....	.....	.....	38	1.00	211.50

* Mileage in 1917.

MEADE COUNTY.

Commissioners: A. B. Roberts, Jno. Cordes, and T. B. Novinger.

County Funds.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
General county road fund*	$6,374.99	$6,832.23	$457.24	.....	.....	.....
County motor vehicle license fund	8,178.47	570.41	7,608.06	.....	.....	.....
Donations, subscriptions, etc.	.....	.....	.....	.....	.....	.....
Total road funds	$14,553.46	$7,402.64	$7,150.82	.....	.....	.....
Total bridge funds	.....	.....	.....	.....	.....	.....
Grand total	.....	.....	.....	.....	.....	.....

* Includes bridges.

TOWNSHIP ROAD, BRIDGE, DRAG AND POLL-TAX FUNDS.

Townships.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
Cimarron	.....	.....	.....	.....	.....	.....
Crooked Creek	.....	.....	.....	.....	.....	.....
Fowler	.....	.....	.....	.....	.....	.....
Logan	.....	.....	.....	.....	.....	.....
Meade Center	.....	.....	.....	.....	.....	.....
Mertilla	.....	.....	.....	.....	.....	.....
Odee	.....	.....	.....	.....	.....	.....
Sand Creek	.....	.....	.....	.....	.....	.....
West Plains	.....	.....	.....	.....	.....	.....
Total	.....	.....	.....	.....	.....	.....

COST OF DRAGGING EARTH ROADS.

	Total mileage.	1917.			1918.		
		Number of miles dragged.	Average cost one round trip.	Total cost.	Number of miles dragged.	Average cost one round trip.	Total cost.
County roads	137	137	$0.75	$496.36	.....	.....	$504.42
Township roads	733	.....	.....	.....	.....	.....	.....
Grand total	870	.....	.....	.....	.....	.....	.....
Cimarron	.....	.....	.....	.....	.....	.....	.....
Crooked Creek	.....	.....	.....	.....	.....	.....	.....
Fowler	.....	.....	.....	.....	.....	.....	.....
Logan	.....	.....	.....	.....	.....	.....	.....
Meade Center	.....	.....	.....	.....	.....	.....	.....
Mertilla	.....	.....	.....	.....	.....	.....	.....
Odee	.....	.....	.....	.....	.....	.....	.....
Sand Creek	.....	.....	.....	.....	.....	.....	.....
West Plains	.....	.....	.....	.....	.....	.....	.....

MIAMI COUNTY.

Commissioners: R. O. Whitaker, W. P. Shaffer, and C. H. Wright.

County Funds.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
General county road fund.	$20,404.74	$10,272.99	$10,131.75	$41,277.74	$14,086.87	$27,190.87
County motor vehicle license fund	4,275.50	491.52	3,783.98	4,115.47	5,085.32	969.85
Donations, subscriptions, etc.	.....	.....	.....	.....	.....	.....
Total road funds	$24,680.24	$10,764.51	$13,915.73	$45,393.21	$19,172.19	$26,221.02
Total bridge funds	5,007.54	2,308.38	2,699.16	28,683.74	13,154.22	15,529.52
Grand total	$29,687.78	$13,072.89	$16,614.89	$74,076.95	$32,326.41	$41,750.54

TOWNSHIP ROAD, BRIDGE, DRAG AND POLL-TAX FUNDS.

Townships.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
Marysville	$7,177.77	$4,527.75	$2,650.02	$9,025.25	$5,429.60	$3,595.65
Miami	3,573.83	3,075.64	498.19	5,093.37	217.51	4,875.86
Middle Creek	2,873.03	2,816.38	56.65	4,457.99	2,233.87	2,224.12
Mound	2,332.85	1,192.52	1,140.33	4,081.75	2,135.97	1,945.78
Osage	2,791.05	2,127.57	663.48	3,897.62	1,790.14	2,107.48
Osawatomie	3,608.41	2,217.06	1,391.35	.....	.....	.....
Paola	3,338.47	1,926.01	1,412.46	2,729.22	2,001.46	727.76
Richland	5,180.08	3,210.00	1,970.08	9,184.17	6,133.84	3,050.33
Stanton	2,727.42	932.10	1,795.32	6,642.78	3,243.20	3,399.58
Sugar Creek	2,569.97	1,328.07	1,241.90	4,667.88	2,060.69	2,607.19
Ten Mile	2,716.87	1,133.17	1,583.70	5,117.21	1,856.42	3,260.79
Valley	2,840.44	2,081.57	758.87	3,398.75	3,037.52	361.23
Wea	5,704.17	2,278.12	3,426.05	7,087.75	3,285.89	3,801.86
Total	$47,434.36	$28,845.96	$18,588.40	$65,383.74	$33,426.11	$31,957.63

COST OF DRAGGING EARTH ROADS.

	Total mileage.	1917.			1918.		
		Number of miles dragged.	Average cost one round trip.	Total cost.	Number of miles dragged.	Average cost one round trip.	Total cost.
County roads	175	175	$0.50	$1,475.88	175	$0.75	$2,338.65
Township roads	1,029	345.5	.694	1,233.35	454.5	.739	2,778.38
Grand total	1,204	520.5	$0.597	$2,709.23	629.5	$0.744	$5,117.03
Marysville	.....	.....	$0.50	$360.25	68	$0.75	$442.30
Miami	90	.....	.....	.....	.....	.75	183.75
Middle Creek	.....	.....	.....	.....	40	.625	139.50
Mound	.....	.....	.....	.....	48.5	.75	218.25
Osage	66	40	.50	80.00	50	.75	150.00
Osawatomie	.....	30	.75	157.50	.....	.75	234.00
Paola	47.5	47.5	.75	51.90	12	.75	93.08
Richland	131.5	50	1.50	75.00	70	.75	350.00
Stanton	78	78	.50	121.20	37	.75	258.80
Sugar Creek	54.5	10	.50	5.00	16	.75	101.15
Ten Mile	.....	.....	.....	.....	6	.....	22.00
Valley	75.5	50	.75	262.50	50	.75	332.06
Wea	98	40	.50	120.00	57	.75	253.55

MITCHELL COUNTY.

Commissioners: M. L. Grecian, D. M. Finney, and J. H. Marzolf.

County Funds.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
General county road fund.	$18,941.39	$16,522.79	$2,418.60	$19,725.04	$20,640.24	*$915.20*
County motor vehicle license fund	735.00	.....	735.00	11,641.24	2,798.60	8,842.64
Donations, subscriptions, etc.	24.90	.....	24.90	62.32	62.32	.....
Total road funds	$19,701.29	$16,522.79	$3,178.50	$31,428.60	$23,501 16	$7,927 44
Total bridge funds	18,859.89	28,410.95	*9,551.06*	20,299.02	15,712.98	4,586.04
Grand total	$38,561.18	$44,933.74	*$6,372 56*	$51,727 62	$39,214.14	$12,513.48

TOWNSHIP ROAD, BRIDGE, DRAG AND POLL-TAX FUNDS.

Townships.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
Asherville	.....	.....	.....	.....	.....	.....
Beloit	.....	.....	.....	.....	.....	.....
Bloomfield	.....	.....	.....	.....	.....	.....
Blue Hill	$1,259.57	$894.44	$365.13	.....	.....	.....
Carr Creek	1,551.49	1,226.74	324.75	.....	.....	.....
Cawker	.....	.....	.....	$1,466.40	$484.25	$982.15
Center	1,622.35	1,543.25	79.10	.....	.....	.....
Custer	1,453.00	1,095.07	357.93	1,077.85	887.73	190 02
Eureka	.....	.....	.....	1,147.90	715.14	432.76
Glen Elder	.....	.....	.....	.....	.....	.....
Hayes	1,391.21	818.45	572.76	1,194.87	762.40	432.47
Logan	.....	.....	.....	.....	.....	.....
Lula	3,884.93	.....	3,884 93	11,929.40	6,989.49	4,939.91
Pittsburg	2,105.31	1,708.53	396.78	.....	.....	.....
Plum Creek	.....	.....	.....	734.93	328.20	406.73
Round Spring	.....	.....	.....	.....	.....	.....
Salt Creek	1,015.04	353.65	661.39	869.84	118.33	751.51
Solomon Rapids	.....	.....	.....	1,694.38	2,409.25	*714.87*
Turkey Creek	.....	.....	.....	481.14	481.14	.....
Walnut Creek	1,984.51	1,788.85	195.66	2,839.09	1,247.06	1,592.03
Total	$16,267 41	$9,428.98	$6,838 43	$23,435.80	$14,423.09	$9,012.71

COST OF DRAGGING EARTH ROADS.

	Total mileage.	1917.			1918.		
		Number of miles dragged.	Average cost one round trip.	Total cost.	Number of miles dragged.	Average cost one round trip	Total cost.
County roads	215	.....	.....	.....	.....	.....	.....
Township roads	1,132	52	$0.65	$130.50	610.6	$0.65	$1,318.55
Grand total	1,347	.....	.....	.....	.....	.....	.....
Asherville	56	.....	.....	.....	.....	.....	.....
Beloit	52	.....	.....	.....	52	$0.65	$314.40
Bloomfield	53	.....	.....	.....	.....	.....	.....
Blue Hill	63	.....	.....	.....	63	.....	43.12
Carr Creek	57	.....	.....	.....	.....	.....	.....
Cawker	61	.....	.....	.....	.....	.....	.....
Center	56	.....	.....	.....	.....	.....	.....
Custer	45	.....	.....	.....	45	.65	101.25
Eureka	56	.....	.....	.....	56	.65	93.00

MITCHELL COUNTY—CONCLUDED.

	Total mileage.	1917.			1918.		
		Number of miles dragged.	Average cost one round trip.	Total cost.	Number of miles dragged.	Average cost one round trip.	Total cost.
Glen Elder	60	.....	.....	.....	.....	.....	.....
Hayes	52	52	$0.65	$130.50	52	$0.65	$64.65
Logan	53	.....	.....	.....	53	.....	117.03
Lula	61	.....	.....	.....	61	.65	144.90
Pittsburg	52	.....	.....	.....	.....	.....	.....
Plum Creek	58	.....	.....	.....	45.6	.65	29.75
Round Spring	54	.....	.....	.....	.....	.....	.....
Salt Creek	57	.....	.....	.....	.....	.....	.....
Solomon Rapids	66	.....	.....	.....	66	.65	142.50
Turkey Creek	52	.....	.....	.....	52	.65	67.95
Walnut Creek	65	.....	.....	.....	65	.65	200.00

MONTOMERY COUNTY.

Commissioners: G. M. Shanton, M. F. Wood, and Elzie Corfman.

County Funds.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
General county road fund	.....	.....	.....	$73,469.11	$44,873.86	$28,595.25
County motor vehicle license fund	.....	.....	.....	18,372.07	3,100.71	15,271.36
Donations, subscriptions, etc	.....	.....	.....	.....	.....	.....
Total road funds	.....	.....	.....	$91,841.18	$47,974.57	$43,866.61
Total bridge funds	.....	.....	.....	.....	.....	.....
Grand total	.....	.....	.....	.....	.....	.....

TOWNSHIP ROAD, BRIDGE, DRAG AND POLL-TAX FUNDS.

Townships.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures	Balance.
Caney	$3,627.12	$2,897.23	$729.89	$12,048.56	$9,237.85	$2,810.71
Cherokee	.....	.....	.....	6,589.01	2,903.95	3,685.06
Cherry	.....	.....	.....	11,350.74	6,318.63	5,032.11
Drum Creek	2,772.65	1,443.67	1,328.98	5,396.14	2,694.27	2,701.87
Fawn Creek	3,841.20	.....	3,841.20	15,073.90	6,121.82	8,952.08
Independence	.....	.....	.....	14,155.14	12,364.81	1,790.33
Liberty	3,977.55	2,890.05	1,087.50	6,606.99	5,934.48	672.51
Louisburg	.....	.....	.....	5,016.38	2,490.24	2,526.14
Parker	6,694.49	3,607.70	3,086.79	10,368.31	5,160.31	5,208.00
Rutland	4,044.86	1,366.60	2,678.26	8,316.70	5,044.17	3,272.53
Sycamore	.....	.....	.....	6,546.04	6,190.21	355.83
West Cherry	.....	.....	.....	5,450.55	2,864.90	2,585.65
Total	$24,957.87	$12,205.25	$12,752.62	$106,918.46	$67,325.64	$39,592.82

COST OF DRAGGING EARTH ROADS.

	Total mileage.	1917.			1918.		
		Number of miles dragged.	Average cost one round trip.	Total cost.	Number of miles dragged.	Average cost one round trip.	Total cost.
County roads	150.25	152	$0.75	$3,296.76	145.5	$0.90	3,659.62
Township roads	1,117.73	80	.75	914.25	438	.71	5,105.55
Grand total	1,267.98	232	$0.75	$4,211.01	583.5	$0.805	8,765.17
Caney	111.97	42	$0.75	$355.75	43	$0.85	$292.22
Cherokee	73.62	.....	.....	.....	32.5	.50	414.11
Cherry	70	.....	.....	.....	35	.....	441.60
Drum Creek	51.56	.....	.....	.....	30	.75	186.50
Fawn Creek	125.63	.....	.....	.....	31	.70	460.95
Independence	136.5	.....	.....	.....	100	.....	1,267.73
Liberty	73.94	38	.75	558.50	42	.75	376.46
Louisburg	129.63	.....	.....	.....	.....	.....	64.00
Parker	54.48	.....	.....	.....	41	.75	656.00
Rutland	119.3	.....	.....	.....	25	.60	215.80
Sycamore	104.22	.....	.....	.....	38.5	.75	642.40
West Cherry	66.88	.....	.....	.....	20	.75	87.78

MORRIS COUNTY.

Commissioners: G. H. Burton, Fred W. Thomas, and S. W. Stranathon.

County Funds.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
General county road fund	$22,792.90	$28,197.22	$5,404.32	.....	.....	.....
County motor vehicle license fund	.....	.....	.....	.....	.....	.....
Donations, subscriptions, etc.	.....	.....	.....	.....	.....	.....
Total road funds	$22,792.90	$28,197.22	$5,404.32	.....	.....	.....
Total bridge funds	.....	.....	.....	.....	.....	.....
Grand total	.....	.....	.....	.....	.....	.....

TOWNSHIP ROAD, BRIDGE, DRAG AND POLL-TAX FUNDS.

Townships.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
Burdick	$2,102.21	$1,764.22	$337.99	.....	.....	.....
Clarks Creek	.....	.....	.....	.....	.....	.....
Council Grove	721.67	695.69	25.98	.....	.....	.....
Diamond Valley	.....	.....	.....	.....	.....	.....
Elm Creek	3,959.65	3,631.72	327.93	.....	.....	.....
Four Mile	.....	.....	.....	.....	.....	.....
Garfield	1,509.19	678.50	830.69	.....	.....	.....
Grand View	.....	.....	.....	.....	.....	.....
Highland	.....	.....	.....	.....	.....	.....
Neosho	.....	.....	.....	.....	.....	.....
Ohio	.....	.....	.....	.....	.....	.....
Overland	.....	.....	.....	.....	.....	.....
Parker	.....	.....	.....	.....	.....	.....
Rolling Prairie	.....	.....	.....	.....	.....	.....
Valley	.....	.....	.....	.....	.....	.....
Warren	.....	.....	.....	.....	.....	.....
Total	$8,292.72	$6,770.13	$1,522.59	.....	.....	.....

COST OF DRAGGING EARTH ROADS.

	Total mileage.	1917.			1918.		
		Number of miles dragged.	Average cost one round trip.	Total cost.	Number of miles dragged.	Average cost one round trip.	Total cost.
County roads	180	180	$0.50	$2,440.18	179.8	$0.75	$1,552.05
Township roads	1,020	92	.50	718.00	.....	.....	.....
Grand total	1,200	272	$0.50	$3,158.18	.....	.....	.....
Burdick	.....	2	.....	$15.00	.....	.....	.....
Clarks Creek	.....	22	$0.50	154.00	.....	.....	.....
Council Grove	*29.75	6	.25	36.00	.....	.....	.....
Diamond Valley	.....	.....	.....	.....	.....	.....	.....
Elm Creek	*162.5	36	.....	175.00	.....	.....	.....
Four Mile	.....	.....	.....	.....	.....	.....	.....
Garfield	.....	.....	.....	.....	.....	.....	.....
Grand View	.....	.....	.....	.....	.....	.....	.....
Highland	.....	.....	.....	.....	.....	.....	.....
Neosho	.....	.....	.....	.....	.....	.....	.....
Ohio	.....	.....	.....	.....	.....	.....	.....
Overland	.....	.....	.....	.....	.....	.....	.....
Parker	.....	.....	.....	.....	.....	.....	.....
Rolling Prairie	*50	26	.75	338.00	.....	.....	.....
Valley	.....	.....	.....	.....	.....	.....	.....
Warren	.....	.....	.....	.....	.....	.....	.....

* Mileage in 1917.

MORTON COUNTY.

Commissioners: G. F. Mangels, E. M. Dean, and W. E. Jones.

County Funds.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
General county road fund	.....	.....	.....	.....	.....	.....
County motor vehicle license fund	.....	.....	.....	.....	.....	.....
Donations, subscriptions, etc.	.....	.....	.....	.....	.....	.....
Total road funds	.....	.....	.....	.....	.....	.....
Total bridge funds	.....	.....	.....	.....	.....	.....
Grand total	.....	.....	.....	.....	.....	.....

TOWNSHIP ROAD, BRIDGE, DRAG AND POLL-TAX FUNDS.

Townships.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
Cimarron	.....	.....	.....	.....	.....	.....
Richfield	.....	.....	.....	.....	.....	.....
Taloga	.....	.....	.....	.....	.....	.....
Westola	.....	.....	.....	.....	.....	.....
Total	.....	.....	.....	.....	.....	.....

COST OF DRAGGING EARTH ROADS.

	Total mileage.	1917.			1918.		
		Number of miles dragged.	Average cost one round trip.	Total cost.	Number of miles dragged.	Average cost one round trip.	Total cost.
County roads	67	.....	.....	.....	.....	.....	.....
Township roads	83	.....	.....	.....	.....	.....	.....
Grand total	150	.....	.....	.....	.....	.....	.....
Cimarron	.....	.....	.....	.....	.....	.....	.....
Richfield	.....	.....	.....	.....	.....	.....	.....
Taloga	.....	.....	.....	.....	.....	.....	.....
Westola	.....	.....	.....	.....	.....	.....	.....

NEMAHA COUNTY.

Commissioners: W. E. Ruse, F. G. Millick, and Owen J. Larkin.

County Funds.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
General county road fund	$20,872.24	$13,471.20	$7,401.04	$24,295.24	$13,452.94	$10,842.30
County motor vehicle license fund	5,278.50	.....	5,278.50	7,881.97	613.74	7,268.23
Donations, subscriptions, etc	.....	.....	.....	2.00	2.00	.....
Total road funds	$26,150.74	$13,471 20	$12,679.54	$32,179.21	$14,068 68	$18,110 53
Total bridge funds	29,297.35	23,817.06	5,480.29	40,349.43	35,548.37	4,801 06
Grand total	$55,448.09	$37,288 26	$18,159.83	$72,528.64	$49,617 05	$22,911.59

TOWNSHIP ROAD, BRIDGE, DRAG AND POLL-TAX FUNDS.

Townships.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
Adams	$4,959.82	$4,959 82	.....	$5,881 50	$5,561 62	$319 88
Berwick	7,461.07	4,377 87	$3,083.20	6,272 55	5,080.84	1,191.71
Capioma	5,707 21	5,703.66	3 55	6,254.51	3,114.15	3,140.36
Center	4,838 87	4,110.97	727.90	5,707.95	4,620 07	1,087.88
Clear Creek	3,757 27	3,788.12	*30.85*	1,959.43	2,034 42	*74.99*
Gilman	9,426 20	6,047 85	3,378.35	8,471.87	3,832 44	4,639.43
Granada	4,454 87	4,454 87	.....	2,537.19	2,412 29	124 90
Harrison	7,328 05	6,316 64	1,011.41	7,245.29	7,014.01	231 28
Home	3,875.49	3,709 40	166 09	4,757.04	3,715 05	1,041.99
Illinois	5,642.53	5,579 74	62.79	4,315 24	2,117.31	2,197.93
Marion	5,888 86	3,877.77	2,011.09	4,875 92	4,457 80	418.12
Mitchell	4,653.37	4,677 02	*23.65*	5,592.17	6,172 27	*580 10*
Nemaha	6,383.90	3,872.32	2,511.58	6,351 72	5,796 97	555.75
Neuchatel	4,478 39	4,820 39	*342.00*	2,491.14	3,106 62	*615.48*
Red Vermilion	2,241 90	4,532.99	*2,291.09*	2,248.[illegible]8	2,135.43	112.95
Reilly	5,859 46	2,235.94	3,623 52	5,429 60	3,006.45	2,423.15
Richmond	5,022.15	4,439.28	582 87	5,312.65	5,440 09	*127.44*
Rock Creek	5,829.85	5,267.46	562 39	6,481.76	5,958.78	522.98
Washington	8,786.43	3,281.75	5,504.68	4,805.60	3,191.55	1,614.05
Wetmore	6,127.75	6,127.75	.....	3,761.64	3,767.44	*5.80*
Total	$112,723 44	$9[illegible],181.61	$20,541.83	$100,753.15	$82,534.60	$18,218.55

COST OF DRAGGING EARTH ROADS.

	Total mileage.	1917.			1918.		
		Number of miles dragged.	Average cost one round trip.	Total cost.	Number of miles dragged.	Average cost one round trip.	Total cost.
County roads	154.5	60	$0.50	$693.25	130.5	$0.75	$1,645.26
Township roads	1300.5	1,072.75	.613	5,716.70	872.2	.71	6,330.04
Grand total	1,455	1,132.75	$0.556	$6,409.95	1,002.7	$0.73	$7,975.30
Adams	69.75	60	$0.75	$390.00	53.3	$0.75	$451.14
Berwick	62.5	43	.50	1[illegible]1.25	40	.75	422.57
Capioma	66	66	.50	203.00	60	.50	238.73
Center	69	40	.50	200.00	55	.50	162.50
Clear Creek	63	30	.75	125.00	41	.75	164.00
Gilman	67	50	.75	375.00	40	.75	387.14
Granada	64.5	64.5	.50	235.75	33.3	.75	306.00
Harrison	62.5	59	.75	590.00	50	.75	750.00
Home	64.5	32	.75	345.20	30	.75	523.84

NEMAHA COUNTY—CONCLUDED.

	Total mileage.	1917.			1918.		
		Number of miles dragged.	Average cost one round trip.	Total cost.	Number of miles dragged.	Average cost one round trip.	Total cost.
Illinois	64	64	$0.75	$430.64	64	$0.75	$361.89
Marion	*64	64	.50	249.50	40	.50	140.65
Mitchell	64	55	.....	302.50	54	.75	414.15
Nemaha	71	45	.75	318.15	49	.75	147.04
Neuchatel	66	60	.50	121.00	27	.....	213.75
Red Vermilion	69.25	69.25	.60	210.00	40	1.25	292.53
Reilly	65	48	.50	144.25	32	.50	199.75
Richmond	63.5	55	.50	412.50	40	.75	261.34
Rock Creek	59.5	45	.50	337.50	29	.50	235.95
Washington	66	63	.75	466.46	50	.75	389.30
Wetmore	62	60	.55	99.00	44.6	.75	267.77

* Mileage in 1917.

NEOSHO COUNTY.

Commissioners: Glenn Linbocker, R. A. Butler, and L. P. Burris.

County Funds.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
General county road fund*	$16,728.35	$18,033.24	*$1,304.89*	$14,643.57	$9,666.16	$4,977.41
County motor vehicle license fund	736.00	275.00	461.00	6,425.00	1,731.80	4,693.20
Donations, subscriptions, etc.	.....	.....	.....	.....	.....	.....
Total road funds	$17,464.35	$18,308.24	*$843.89*	$21,068.57	$11,397.96	$9,670.61
Total bridge funds	1,623.66	7,672.30	*6,048.64*	10,042.82	1,607.88	8,434.94
Grand total	$19,088.01	$25,980.54	*$6,892.53*	$31,111.39	$13,005.84	$18,105.55

* Includes bridges.

TOWNSHIP ROAD, BRIDGE, DRAG AND POLL-TAX FUNDS.

Townships.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
Big Creek	$1,863.43	$1,512.10	$351.33	$5,537.94	$1,819.39	$3,718.55
Canville	2,479.89	2,429.77	50.12	3,347.54	2,637.60	709.94
Centerville	1,858.14	903.90	954.24	2,173.65	1,463.42	710.23
Chetopa	736.63	729.99	6.64	2,931.95	2,202.46	729.49
Erie	2,338.07	2,018.15	319.92	4,348.93	1,854.48	2,494.45
Grant	2,079.89	1,508.84	571.05	3,077.22	1,699.63	1,377.59
Ladore	2,879.45	1,986.65	892.80	4,281.08	2,926.98	1,354.10
Lincoln	1,661.11	915.88	745.23	3,223.73	2,286.44	937.29
Mission	2,018.29	2,018.29	.....	3,017.24	2,714 96	302.28
Shiloh	2,380.50	2,199.77	180.73	2,304.38	2,246.73	57 65
Tioga	6,487.51	2,968.94	3,518.57	11,648.62	5,024.07	6,624.55
Walnut Grove	2,773.18	2,145.77	627.41	4,426.18	2,573.07	1,853.11
Total	$29,556.09	$21,338.05	$8,218.04	$50,318.46	$29,449.23	$20,869.23

COST OF DRAGGING EARTH ROADS.

	Total mileage.	1917.			1918.		
		Number of miles dragged.	Average cost one round trip.	Total cost.	Number of miles dragged.	Average cost one round trip.	Total cost.
County roads	150	147	$0.60	$1,389.60	148.25	$0.75	$1,731.80
Township roads	1,010	.....	.65	1,025.95	.....	.67	3,326.11
Grand total	1,160	.....	$0.625	$2,415.55	.....	$0.71	$5,057.91
Big Creek	80.25	.....	$0.75	$64.50	.....	$0.75	$63.86
Canville	89.75	.....	.75	85.00	.....	.75	281.49
Centerville	80.5	.....	.50	79.50	.....	.50	264.60
Chetopa	88.25	.....	.75	77.14	.....	.75	340.09
Erie	81.25	.....	.....	.....	.....	.75	437.72
Grant	86	.....	.....	.....	.....	.75	24.00
Ladore	89.75	.....	.50	134.00	.....	.50	433.70
Lincoln	94.5	.....	.50	31.50	.....	.50	201.52
Mission	76	.....	.75	154.05	.....	.75	308.47
Shiloh	85.5	.....	.50	134.75	.....	.50	196.89
Tioga	80	.....	.75	154.81	.....	.75	333.09
Walnut Grove	80	.....	.75	110.70	.....	.75	440.68

NESS COUNTY.

Commissioners: B. C. Brown, J. H. Maranville, and Albert Lovitt.

County Funds.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
General county road fund	.....	.....	.....	$5,321.79	$2,307.61	$3,014.18
County motor vehicle license fund	.....	.....	.....	4,324.28	1,315.72	3,008.56
Donations, subscriptions, etc.	.....	.....	.....	.....	.....	.....
Total road funds	.....	.....	.....	$9,646.07	$3,623.33	$6,022.74
Total bridge funds	.....	.....	.....	2,908.59	1,361.09	1,547.50
Grand total	.....	.....	.....	$12,554.66	$4,984.42	$7,570.24

TOWNSHIP ROAD, BRIDGE, DRAG AND POLL-TAX FUNDS.

Townships.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
Basine	.....	.....	.....	$4,774.63	$2,884.73	$1,889.90
Center	.....	.....	.....	.....	.....	.....
Eden	.....	.....	.....	719.20	563.25	155.95
Forrester	.....	.....	.....	5,400 00	195.00	5,205.00
Franklin	.....	.....	.....	1,169.22	.....	1,169.22
High Point	.....	.....	.....	914.15	347.30	566.85
Johnson	.....	.....	.....	.....	.....	.....
Nevada	.....	.....	.....	2,494 00	1,063.00	1,431.00
Ohio	.....	.....	.....	1,732.00	1,530.91	201.09
Waring	.....	.....	.....	2,762.81	378.00	2,384.81
Total	.....	.....	.....	$19,966.01	$6,962.19	$13,003.82

COST OF DRAGGING EARTH ROADS.

	Total mileage.	1917.			1918.		
		Number of miles dragged.	Average cost one round trip.	Total cost.	Number of miles dragged.	Average cost one round trip.	Total cost.
County roads	117.3	.....	.....	.....	117.38	$0.75	$1,315.72
Township roads	987	.....	.....	.....	173.5	.62	203.00
Grand total	1,004.3	.....	.....	.....	290.88	$0.685	$1,518.72
Basine	132	.....	.....	.....	0.5	.....	$0.75
Center	.....	.....	.....	.....	.....	.....	.....
Eden	65	.....	.....	.....	.....	.....	.....
Forrester	62.5	.....	.....	.....	5	.....	5.00
Franklin	110.5	.....	.....	.....	50	$0.50	75.00
High Point	107	.....	.....	.....	.....	.....	.....
Johnson	.....	.....	.....	.....	.....	.....	.....
Nevada	138	.....	.....	.....	.....	.....	.....
Ohio	135	.....	.....	.....	4	.75	36.75
Waring	134	.....	.....	.....	114	.....	85.50

NORTON COUNTY.

Commissioners: R. W. Dole, Amos Colfee, and Albert Schoen.

County Funds.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
General county road fund						
County motor vehicle license fund						
Donations, subscriptions, etc						
Total road funds						
Total bridge funds						
Grand total						

TOWNSHIP ROAD, BRIDGE, DRAG AND POLL-TAX FUNDS.

Townships.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
Aldine						
Almerle						
Almena						
Belle Plaine						
Center						
Clayton						
Crystal						
Emmett						
Garfield						
Grant						
Harrison						
Highland						
Lenora						
Leota						
Lincoln						
Modell						
Noble						
Orange						
Rock Branch						
Rockwell						
Sand Creek						
Solomon						
West Union						
Total						

COST OF DRAGGING EARTH ROADS.

	Total mileage.	1917.			1918.		
		Number of miles dragged.	Average cost one round trip.	Total cost.	Number of miles dragged.	Average cost one round trip.	Total cost.
County roads	206						
Township roads	1,325						
Grand total	1,531						
Aldine							
Almerle							
Almena							
Belle Plaine							
Center							

NORTON COUNTY—CONCLUDED.

	Total mileage.	1917.			1918.		
		Number of miles dragged.	Average cost one round trip.	Total cost.	Number of miles dragged.	Average cost one round trip.	Total cost.
Clayton							
Crystal							
Emmett							
Garfield							
Grant							
Harrison							
Highland							
Lenora							
Leota							
Lincoln							
Modell							
Noble							
Orange							
Rock Branch							
Rockwell							
Sand Creek							
Solomon							
West Union							

OSAGE COUNTY.

Commissioners: B. D. Haller, E. M. Tucker, and Marion Smith.

County Funds.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
General county road fund	.....	.....	.....	$35,130.52	$18,550.78	$16,579.74
County motor vehicle license fund	.....	.....	.....	$7,307.01	$3,480.31	$3,826.70
Donations, subscriptions, etc	.....	.....	.....	.....	.....	.....
Total road funds	.....	.....	.....	$42,437.53	$22,031.09	$20,406.44
Total bridge funds	.....	.....	.....	16,820.79	14,023.65	2,797.14
Grand total	.....	.....	.....	$59,258.32	$36,054.74	$23,203.58

TOWNSHIP ROAD, BRIDGE, DRAG AND POLL-TAX FUNDS.

Townships	1917.			1918		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
Agency	.....	.....	.....	$5,179.17	$1,639.58	$3,539.59
Arvonia	.....	.....	.....	.....	.....	.....
Barclay	$1,843.99	$1,533.97	$310.02	.....	.....	.....
Burlingame	.....	.....	.....	6,588.75	6,100.00	488.75
Dragoon	.....	.....	.....	.....	.....	.....
Elk	.....	.....	.....	.....	.....	.....
Fairfix	.....	.....	.....	.....	.....	.....
Grant	.....	.....	.....	4,139.57	2,538.36	1,601.21
Junction	.....	.....	.....	.....	.....	.....
Lincoln	.....	.....	.....	2,812.46	1,560.06	1,252.40
Melvern	.....	.....	.....	5,069.73	3,159.54	1,910.19
Olivet	.....	.....	.....	.....	.....	.....
Ridgeway	.....	.....	.....	.....	.....	.....
Scranton	.....	.....	.....	.....	.....	.....
Superior	.....	.....	.....	.....	.....	.....
Valley Brook	.....	.....	.....	3,395.23	3,315.00	79.23
Total	$1,843.99	$1,533.97	$310.02	$27,184.91	$18,313.54	$8,871.37

COST OF DRAGGING EARTH ROADS.

	Total mileage.	1917.			1918.		
		Number of miles dragged.	Average cost one round trip.	Total cost.	Number of miles dragged.	Average cost one round trip.	Total cost.
County roads	219	.....	.....	.....	219	$1.00	$3,480.31
Township roads	1,157.5	55	$0.75	$466.02	229	.75	2,556.91
Grand total	1,376.5	.....	.....	.....	448	$0.875	$6,037.22
Agency	46	.....	.....	.....	30	$0.75	$202.50
Arvonia	73	.....	.....	.....	.....	.....	.....
Barclay	77	55	$0.75	$466.02	.....	.....	.....
Burlingame	121	.....	.....	.....	75	.75	1,125.00
Dragoon	67	.....	.....	.....	.....	.....	.....
Elk	84	.....	.....	.....	.....	.....	.....
Fairfix	72	.....	.....	.....	.....	.....	.....
Grant	68	.....	.....	.....	46	.75	413.21
Junction	76	.....	.....	.....	.....	.....	.....
Lincoln	51	.....	.....	.....	30	.75	168.20
Melvern	76	.....	.....	.....	48	.75	648.00
Olivet	105	.....	.....	.....	.....	.....	.....
Ridgeway	72	.....	.....	.....	.....	.....	.....
Scranton	55	.....	.....	.....	.....	.....	.....
Superior	46	.....	.....	.....	.....	.....	.....
Valley Brook	68.5	.....	.....	.....	.....	.....	.....

OSBORNE COUNTY.

Commissioners: Geo. Tamm, H. A. Turner, and Jas. Davis.

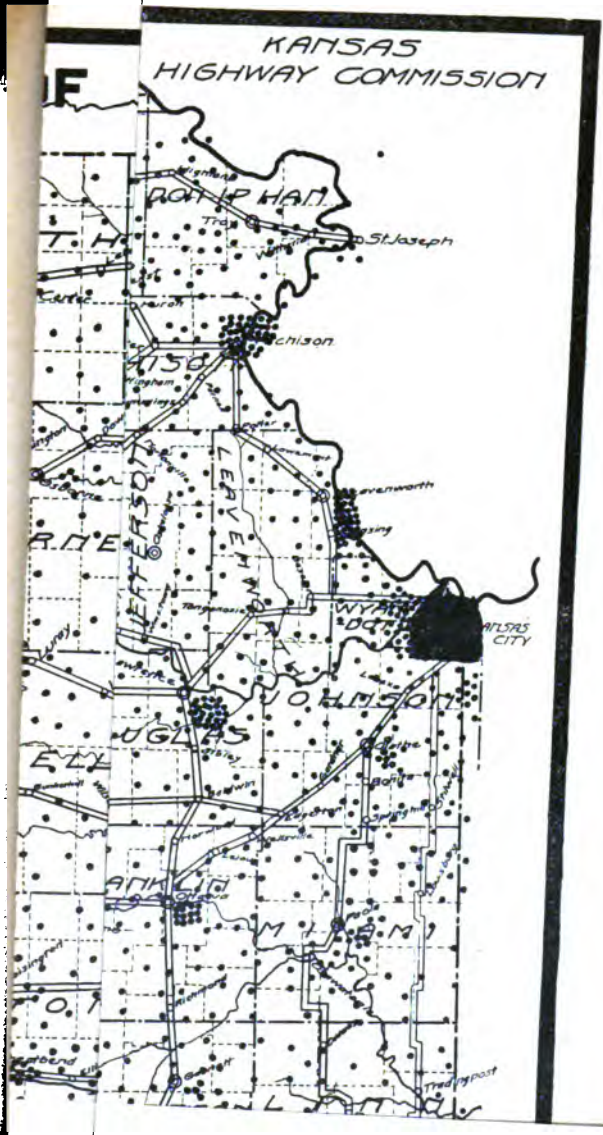
County Funds.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
General county road fund	.....	.....	.....	.....	.....	.....
County motor vehicle license fund	.....	.....	.....	.....	.....	.....
Donations, subscriptions, etc	.....	.....	.....	.....	.....	.....
Total road funds	.....	.....	.....	.....	.....	.....
Total bridge funds	.....	.....	.....	$25,720.87	$13,066 30	$12,654.57
Grand total	.....	.....	.....	.....	.....	.....

TOWNSHIP ROAD, BRIDGE, DRAG AND POLL-TAX FUNDS.

Townships.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
Bethany	$1,981.50	$945.00	$1,036.50	$3,265.84	$,2233.00	$1,032.84
Bloom	1,256.00	760.00	496 00	.....	.....	.....
Corinth	3,215.00	1,470.00	1,745.00	2,025 00	1,300 00	725.00
Covert	1,784 00	1,400.00	384.00	2,185 63	900 00	1,285 63
Delhi	2,106.00	1,100.00	1,006 00	4,840 00	800 00	4,040.00
Grant	1,420.00	975.00	445.00	1,453.00	400.00	1,053.00
Hancock	1,350.00	250.00	1,100 00	1,372 00	1,786 00	*414.00*
Hawkeye	1,412.00	1,329.00	83.00	1,630 00	1,270 00	360.00
Independence	1,720.00	1,500.00	220.00	1,580.00	540 00	1,040.00
Jackson	2,000.00	1,700.00	300.00	2,327 00	949 00	1,378.00
Kill Creek	.....	.....	.....	2,886 00	500.00	2,386.00
Lawrence	2,174.79	2,298.00	*123.21*	3,011.00	2,350.00	661.00
Liberty	.....	.....	.....	.....	.....	.....
Mt. Ayr	.....	.....	.....	1,995.00	1,300 00	695 00
Natoma	2,707.00	2 000 00	707.00	3,247.00	800.00	2,447.00
Penn	1,880 00	1,357.00	523 00	3,347.00	1,900 00	1,447.00
Ross	5,200 00	1,000 00	4,200.00	3,650 00	1,000.00	2,650 00
Round Mound	3,226 00	1,315.00	1,911 00	1,516 00	800 00	716 00
Sumner	5,169.00	3,470 00	1,699.00	3,353.49	923 78	2,429 71
Tilden	2,150.00	2,480.00	*330.00*	1,962.00	1,063.00	899 00
Valley	.....	.....	.....	2,836.00	1,815.00	1,021.00
Victor	.....	.....	.....	2,848.00	1,547.00	1,301.00
Winfield	1,109.00	100.00	1,009.00	775.00	250 00	525.00
Total	$41,860 29	$25,449.00	$16,411.29	$52,104.96	$24,426.78	$27,678.18

COST OF DRAGGING EARTH ROADS.

	Total mileage.	1917.			1918.		
		Number of miles dragged.	Average cost one round trip.	Total cost.	Number of miles dragged.	Average cost one round trip.	Total cost.
County roads	160	.....	.....	.....	160	$0.75	$2,228.04
Township roads	13.78	379	$0.555	649.00	.....	.....	.....
Grand total	1,5 8	.....	.....	.....	.....	.....	.....
Bethany	55.5	21	$0.50	$126 00	.....	.....	.....
Bloom	*73	30	.50	30.00	.....	.....	.....
Corinth	55	30	.50	90.00	.....	.....	.....
Covert	46	10	.50	25.00	.....	.....	.....
Delhi	73	30	.50	90.00	.....	.....	.....
Grant	70	14	.50	14.00	.....	.....	.....


KANSAS
HIGHWAY COMMISSION
DONIPHAN
St Joseph
Atchison
LEAVENWORTH
Leavenworth
JEFFERSON
WYANDOTTE
KANSAS CITY
JOHNSON
DOUGLAS
ELLIS
ANDERSON
MIAMI

OSBORNE COUNTY—CONCLUDED.

	Total mileage.	1917.			1918.		
		Number of miles dragged.	Average cost one round trip.	Total cost.	Number of miles dragged.	Average cost one round trip.	Total cost.
Hancock	56	15	$1.00	$15.00			
Hawkeye	76	12	.50	12.00			
Independence	35	20	.50	20.00			
Jackson	64	24	.50	24.00			
Kill Creek	72						
Lawrence	*56	17	.50	17.00			
Liberty	42						
Mt. Ayr	64						
Natoma	33	12	1.00	12.00			
Penn	69	30	.50	60.00			
Ross	62	22	.50	22.00			
Round Mound	66	4	.50	4.00			
Sumner	*74	41	.50	41.00			
Tilden	56	7	.50	7.00			
Valley	45.5						
Victor	69						
Winfield	46.5	40	.50	40.00			

* Mileage in 1917.

OTTAWA COUNTY.

Commissioners: Albert Kay, O. W. Chambers, and W. E. Baldwin.

County Funds.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
General county road fund				$41,772.01	$35,325.03	$6,446.98
County motor vehicle license fund				4,348.59	3,506.34	842.25
Donations, subscriptions, etc						
Total road funds				$46,120.60	$38,831.37	$7,289.23
Total bridge funds						
Grand total						

TOWNSHIP ROAD, BRIDGE, DRAG AND POLL-TAX FUNDS.

Townships.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
Bennington				$3,425.98	$1,794.03	$1,631.95
Blaine				2,146.80	1,674.95	471.85
Buckeye				2,925.72	779.10	2,146.62
Center						
Chapman						
Concord						
Culver						
Durham						
Fountain						
Garfield						
Grant						
Henry						
Lincoln						
Logan				6,170.59	5,892.94	277.65
Morton						
Ottawa						
Richland						
Sheridan						
Sherman						
Stanton						
Total				$14,669.09	$10,141.02	$4,528.07

COST OF DRAGGING EARTH ROADS.

	Total mileage.	1917.			1918.		
		Number of miles dragged.	Average cost one round trip.	Total cost.	Number of miles dragged.	Average cost one round trip.	Total cost.
County roads	196						
Township roads	1,108				126.5	$0.50	$393.97
Grand total	1,304						
Bennington	59.5					$0.50	$139.70
Blaine	60				90		67.50
Buckeye					7		39.90
Center							
Chapman							
Concord							
Culver							
Durham							
Fountain							
Garfield							

OTTAWA COUNTY—CONCLUDED.

	Total mileage.	1917.			1918.		
		Number of miles dragged.	Average cost one round trip.	Total cost.	Number of miles dragged.	Average cost one round trip.	Total cost.
Grant							
Henry							
Lincoln							
Logan	57				29.5	$10.50	$146.87
Morton							
Ottawa							
Richland							
Sheridan							
Sherman							
Stanton							

PAWNEE COUNTY.

Commissioners: A. W. Shady, E. A. Griffith, and Dudley Posey.

County Funds.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expendit res.	Balance
General county road fund						
County motor vehicle license fund						
Donations, subscriptions, etc						
Total road funds						
Total bridge funds						
Grand total						

TOWNSHIP ROAD, BRIDGE, DRAG AND POLL-TAX FUNDS.

Townships.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
Ash Valley				$1,755.42	$793.26	$962.16
Browns Grove				2,800.68	1,579.22	1,221.46
Conkling				1,246.85	1,008.83	238.02
Garfield				4,288.88	2,650.63	1,638.25
Grant						
Keysville				1,859.05	916.12	942.93
Larned				6,757.04	1,236.08	5,520.96
Logan				1,448.85	591.98	856.87
Morton				2,865.44	506.29	2,359.15
Pawnee				2,463.02	1,018.32	1,444.70
Pleasant Ridge				3,582.39	1,785.13	1,797.26
Pleasant Valley				3,831.99	1,628.95	2,203.04
River				1,986.10	541.92	1,444.18
Valley Center				2,047.23	1,557.04	490.19
Walnut				2,962.75	1,031.98	1,930.77
Lincoln				921.77	853.90	67.87
Total				$40,817.46	$17,699.65	$23,117.81

COST OF DRAGGING EARTH ROADS.

	Total mileage.	1917.			1918.		
		Number of miles dragged.	Average cost one round trip.	Total cost.	Number of miles dragged.	Average cost one round trip.	Total cost.
County roads	144				100	$0.70	$1,250.00
Township roads	1,280						899.99
Grand total	1,424						2,149.99
Ash Valley							
Browns Grove					12	$0.75	$108.00
Conkling							100.00
Garfield	50						
Grant							66.73
Keysville							79.80
Larned	26						
Logan							117.75
Morton					9		3.00
Pawnee					24		193.25
Pleasant Ridge	10						34.46
Pleasant Valley							60.75
River	41						30.50
Valley Center							51.35
Walnut							16.00
Lincoln					8	.65	8.40

PHILLIPS COUNTY.

Commissioners: J. W. Lemon, Geo. N. Townsend, and M. P. Cannon.

County Funds.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
General county road fund	$1,815.63	.....	$1,815.63	$14,441.72	$10,906.49	$3,535.23
County motor vehicle license fund	13,814.14	$12,538.54	1,275.60	7,121.41	2,816.74	4,304.67
Donations, subscriptions, etc	.....	.....	.....	.....	.....	.....
Total road funds	$15,629.77	$12,538.54	$3,091.23	$21,563.13	$13,723.23	$7,839.90
Total bridge funds	11,090.56	30,512.11	*19,421.55*	17,536.76	17,466.82	69.94
Grand total	$26,720.33	$43,050.65	*$16,330.32*	$39,099.89	$31,190.05	$7,909.84

TOWNSHIP ROAD, BRIDGE, DRAG AND POLL-TAX FUNDS.

Townships.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
Arcade	.....	.....	.....	.....	.....	.....
Beaver	.....	.....	.....	.....	.....	.....
Belmont	.....	.....	.....	.....	.....	.....
Bow Creek	$2,546.10	$57.80	$2,488.30	.....	.....	.....
Crystal	.....	.....	.....	.....	.....	.....
Dayton	.....	.....	.....	.....	.....	.....
Deer Creek	.....	.....	.....	.....	.....	.....
Freedom	.....	.....	.....	.....	.....	.....
Glenwood	.....	.....	.....	.....	.....	.....
Granite	.....	.....	.....	.....	.....	.....
Greenwood	.....	.....	.....	.....	.....	.....
Kirwin	.....	.....	.....	.....	.....	.....
Logan	.....	.....	.....	.....	.....	.....
Long Island	.....	.....	.....	.....	.....	.....
Mound	.....	.....	.....	.....	.....	.....
Phillipsburg	4,112.34	1,829.78	2,282.56	.....	.....	.....
Plainview	1,549.67	449.67	1,100.00	.....	.....	.....
Plum	.....	.....	.....	.....	.....	.....
Prairie View	.....	.....	.....	.....	.....	.....
Rushville	.....	.....	.....	.....	.....	.....
Solomon	3,351.04	919.90	2,431.14	.....	.....	.....
Sumner	.....	.....	.....	.....	.....	.....
Towanda	.....	.....	.....	.....	.....	.....
Valley	.....	.....	.....	.....	.....	.....
Walnut	.....	.....	.....	.....	.....	.....
Total	$11,559.15	$3,257.15	$8,302.00	.....	.....	.....

COST OF DRAGGING EARTH ROADS.

	Total mileage.	1917.			1918.		
		Number of miles dragged.	Average cost one round trip.	Total cost.	Number of miles dragged.	Average cost one round trip.	Total cost.
County roads	203	146	$0.75	$1,610.68	189.75	$0.75	$2,816.74
Township roads	1,620	125.6	.655	323.60	.....	.....	.....
Grand total	1,823	271.6	$0.702	$1,934.28	.....	.....	.....
Arcade	.....	2	$0.50	$3.00	.....	.....	.....
Beaver	.....	.....	.....	.....	.....	.....	.....
Belmont	.....	17	.....	12.75	.....	.....	.....
Bow Creek	*72	.....	.....	.....	.....	.....	.....

* Mileage in 1917.

PHILLIPS COUNTY—CONCLUDED.

	Total mileage.	1917.			1918.		
		Number of miles dragged.	Average cost one round trip.	Total cost.	Number of miles dragged.	Average cost one round trip.	Total cost.
Crystal							
Dayton							
Deer Creek		16	$0.75	$24.00			
Freedom		4	.50	4.00			
Glenwood							
Granite							
Greenwood							
Kirwin		5.6	.75	33.75			
Logan		20	.75	15.00			
Long Island							
Mound							
Phillipsburg		16	.75	35.00			
Plainview							
Plum							
Prairie View		15	.50	60.00			
Rushville							
Solomon		10	.75	45.00			
Sumner		16	.65	79.10			
Towanda		4		12.00			
Valley							
Walnut							

POTTAWATOMIE COUNTY.

Commissioners: C. H. Bayles, Wesley Gurtler, and E. B. Homewood.

County Funds.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
General county road fund	$34,294.40	$51,404.45	*$17,110.05*	$90,273.01	$71,955.99	$18,317.02
County motor vehicle license fund	6,113.00	3,127.15	2,985.85	5,617.95	4,008.35	1,609.60
Donations, subscriptions, etc.	.....	.....	.....	.....	.....	.....
Total road funds	$40,407.40	$54,531.60	*$14,124.20*	$95,890.96	$75,964.34	$19,926 62
Total bridge funds	34,294.40	39,721.93	*$5,427.53*	$35,807.69	$31,541.41	4,266.28
Grand total	$74,701.80	$94,253.53	*$19,551 73*	$131,698.65	$107,505.75	$24,192.90

TOWNSHIP ROAD, BRIDGE, DRAG AND POLL-TAX FUNDS.

Townships.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
Belvue	$6,327.44	$3,380.72	$2,946.72	.....	.....	.....
Blue	.....	.....	.....	.....	.....	.....
Blue Valley	3,388.49	1,272.70	2,115.79	.....	.....	.....
Center	2,355.58	1,837.34	518.24	.....	.....	.....
Clear Creek	.....	.....	.....	.....	.....	.....
Emmet	.....	.....	.....	.....	.....	.....
Grant	.....	.....	.....	.....	.....	.....
Greene	6,351.32	3,685.91	2,665.41	.....	.....	.....
Lincoln	1,683.50	1,583.50	100.00	$2,494.00	$1,453.60	$1,040.40
Lone Tree	3,889.16	1,450.25	2,438.91	4,145.43	2,801.34	1,344.09
Louisville	4,461.15	777.66	3,683.49	4,470.39	1,465.01	3,005.38
Mill Creek	6,078.63	1,803.60	4,275.03	8,809.06	4,252.64	4,556.42
Pottawatomie	.....	.....	.....	.....	.....	.....
Rock Creek	.....	.....	.....	.....	.....	.....
St. Clere	1,431.50	1,135.96	295.54	.....	.....	.....
St. George	4,364.80	3,626.26	738.54	.....	.....	.....
St. Marys	4,074.14	4,175.33	*101.19*	.....	.....	.....
Shannon	5,133.18	5,102.27	30.91	4,398.41	4,146.76	251.65
Sherman	*139.69*	2,529.11	*2,668.80*	.....	.....	.....
Spring Creek	.....	.....	.....	.....	.....	.....
Union	3,063.87	1,302.51	1,761.36	.....	.....	.....
Vienna	3,000.00	1,500.00	1,500.00	.....	.....	.....
Wamego	.....	.....	.....	.....	.....	.....
Total	$55,463 07	$35,163.12	$20,299.95	$24,317.29	$14,119.35	$10,197.94

COST OF DRAGGING EARTH ROADS.

	Total mileage.	1917.			1918.		
		Number of miles dragged.	Average cost one round trip.	Total cost.	Number of miles dragged.	Average cost one round trip.	Total cost.
County roads	200	200	$0.75	$3,001.08	.....	.....	.....
Township roads	1,400	622.5	.643	3,010.72	163.5	$0.72	$868 16
Grand total	1,600	822.5	$0.676	$6,011.80	.....	.....	.....
Belvue	.....	35	$0.75	$315.00	.....	.....	.....
Blue	.....	25	.75	75.00	.....	.....	.....
Blue Valley	*59	20	.75	15.00	.....	.....	.....
Center	.....	65	.50	130.00	.....	.....	.....
Clear Creek	.....	.....	.....	.....	.....	.....	.....
Emmet	.....	.....	.....	.....	.....	.....	.....

POTTAWATOMIE COUNTY—CONCLUDED.

	Total mileage.	1917.			1918.		
		Number of miles dragged.	Average cost one round trip.	Total cost.	Number of miles dragged.	Average cost one round trip.	Total cost.
Grant	*49	38	$0.75	$422.25			
Greene	*100	35	.63	87.70			
Lincoln	*52	52	.60	120.92	31.5	$0.75	$236.25
Lone Tree	54	47	.65	366.60	45	.65	273.16
Louisville		40	.75	254.25			
Mill Creek	59	59	.58	376.70	59		249.20
Pottawatomie	*97.5	10	.50	40.00			
Rock Creek							
St. Clere		5	.75	41.25			
St. George							
St. Marys	*45	30	.75	270.00			
Shannon		35	.68	176.05	28	.75	109.55
Sherman	*71.5	71.5	.50	134.00			
Spring Creek							
Union		30	.50	116.00			
Vienna		25	.55	70.00			
Wamego							

* Mileage in 1917.

PRATT COUNTY.

Commissioners: C. W. Bales, Emett Barker, I. N. Shriver.

County Funds.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
General county road fund	.....	.....	.....	$14,743.37	$11,758.55	$2,984.82
County motor vehicle license fund	.....	.....	.....	3,884.75	1,098.82	2,785.93
Donations, subscriptions, etc	.....	.....	.....	.....	.....	.....
Total road funds	.....	.....	.....	$18,628.12	$12,857.37	$5,770.75
Total bridge funds	.....	.....	.....	.....	.....	.....
Grand total	.....	.....	.....	.....	.....	.....

TOWNSHIP ROAD, BRIDGE, DRAG AND POLL-TAX FUNDS.

Townships.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
Banner	.....	.....	.....	$1,723.61	$1,723.61	.....
Carmi	.....	.....	.....	1,348.65	1,348.65	.....
Center	.....	.....	.....	1,461.50	500.00	961.50
Elm	.....	.....	.....	1,166.33	800.00	366.33
Gove	.....	.....	.....	2,443.75	1,921.45	522.30
Grant	.....	.....	.....	1,046.12	637.25	408.87
Haynesville	.....	.....	.....	3,555.26	1,000.00	2,555.26
Iuka	.....	.....	.....	2,184.01	1,882.52	301.49
Lincoln	.....	.....	.....	1,509.16	1,055.68	453.48
Logan	.....	.....	.....	1,092.44	100.00	992.44
McClelland	.....	.....	.....	1,639.84	600.00	1,039.84
McPherson	.....	.....	.....	159.75	159 75	.....
Naron	.....	.....	.....	1,287 57	987.57	300.00
Ninnescah	.....	.....	.....	1,630.33	1,120.00	510.33
Paxon	.....	.....	.....	2,389.64	1,600.00	789.64
Richland	.....	.....	.....	1,642.23	1,858.50	216.27
Saratoga	.....	.....	.....	867.38	500.00	367.38
Springvale	.....	.....	.....	924.51	500.00	424.51
Valley	.....	.....	.....	1,304.06	957.06	347.00
Total	.....	.....	.....	$29,376.14	$19,252.04	$10,124.10

COST OF DRAGGING EARTH ROADS.

	Total mileage.	1917.			1918.		
		Number of miles dragged.	Average cost one round trip.	Total cost.	Number of miles dragged.	Average cost one round trip.	Total cost.
County roads	133	.....	.....	.....	.....	.....	.....
Township roads	867	.....	.....	.....	.....	.....	.....
Grand total	1,000	.....	.....	.....	.....	.....	.....
Banner	55.75	.....	.....	.....	.....	.....	.....
Carmi	66	.....	.....	.....	.....	.....	.....
Center	61.5	.....	.....	.....	.....	.....	.....
Elm	47.5	.....	.....	.....	.....	.....	.....
Gove	60	.....	.....	.....	.....	.....	.....
Grant	57	.....	.....	.....	.....	.....	.....
Haynesville	85.75	.....	.....	.....	.....	.....	.....
Iuka	96.5	.....	.....	.....	.....	.....	.....
Lincoln	54.25	.....	.....	.....	.....	.....	.....
Logan	57	.....	.....	.....	.....	.....	.....

PRATT COUNTY—CONCLUDED.

	Total mileage.	1917.			1918.		
		Number of miles dragged.	Average cost one round trip.	Total cost.	Number of miles dragged.	Average cost one round trip.	Total cost.
McClelland	54.5						
McPherson	64						
Naron	39						
Ninnescah	56.5						
Paxon	63						
Richland	56						
Saratoga	25.5						
Springvale	51.5						
Valley	99						

RAWLINS COUNTY.

Commissioners: W. R. Bearley, C. E. Howard, and Albert Peterson.

County Funds.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
General county road fund				$9,894.36	$5,254.85	$4,639.51
County motor vehicle- license fund				4,282.00	349.25	3,932.75
Donations, subscriptions, etc						
Total road funds				$14,176.36	$5,604.10	$8,572.26
Total bridge funds						
Grand total						

TOWNSHIP ROAD, BRIDGE, DRAG AND POLL-TAX FUNDS.

Townships.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
Achilles						
Arbor						
Atwood						
Beaver						
Burntwood						
Celia						
Clinton						
Driftwood						
Elk						
Grant						
Herndon						
Jefferson						
Laing						
Logan						
Ludell						
Mikesell						
Mirage						
Richland						
Rotate						
Union						
Total						

COST OF DRAGGING EARTH ROADS.

	Total mileage.	1917.			1918.		
		Number of miles dragged.	Average cost one round trip.	Total cost.	Number of miles dragged.	Average cost one round trip.	Total cost.
County roads	73.5				46	$1.00	$349.25
Township roads	1,490						
Grand total	1,563.5						
Achilles							
Arbor							
Atwood							
Beaver							
Burntwood							
Celia							
Clinton							
Driftwood							
Elk							

RAWLINS COUNTY—CONCLUDED.

	Total mileage.	1917.			1918.		
		Number of miles dragged.	Average cost one round trip.	Total cost.	Number of miles dragged.	Average cost one round trip.	Total cost.
Grant							
Herndon							
Jefferson							
Laing							
Logan							
Ludell							
Mikesell							
Mirage							
Richland							
Rotate							
Union							

RENO COUNTY.

Commissioners: J. L. Ball, Harry Artle, and Peter Deck.

County Funds.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
General county road fund	.....	.....	.....	.....	.....	.....
County motor vehicle license fund	.....	.....	.....	.....	.....	.....
Donations, subscriptions, etc	.....	.....	.....	.....	.....	.....
Total road funds	.....	.....	.....	.....	.....	.....
Total bridge funds	.....	.....	.....	$66,154.89	$38,015.38	$28,139.51
Grand total	.....	.....	.....	.....	.....	.....

TOWNSHIP ROAD, BRIDGE, DRAG AND POLL-TAX FUNDS.

Townships.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
Albion	.....	.....	.....	.....	.....	.....
Arlington	.....	.....	.....	.....	.....	.....
Bell	.....	.....	.....	.....	.....	.....
Castleton	.....	.....	.....	.....	.....	.....
Center	.....	.....	.....	.....	.....	.....
Clay	.....	.....	.....	.....	.....	.....
Enterprise	.....	.....	.....	.....	.....	.....
Grant	.....	.....	.....	.....	.....	.....
Grove	.....	.....	.....	.....	.....	.....
Haven	.....	.....	.....	.....	.....	.....
Huntsville	.....	.....	.....	.....	.....	.....
Langdon	.....	.....	.....	.....	.....	.....
Lincoln	.....	.....	.....	.....	.....	.....
Little River	.....	.....	.....	.....	.....	.....
Loda	.....	.....	.....	.....	.....	.....
Medford	.....	.....	.....	.....	.....	.....
Medora	.....	.....	.....	.....	.....	.....
Miami	.....	.....	.....	.....	.....	.....
Ninnescah	.....	.....	.....	.....	.....	.....
North Hayes	.....	.....	.....	.....	.....	.....
Plevna	.....	.....	.....	.....	.....	.....
Reno	.....	.....	.....	.....	.....	.....
Roscoe	.....	.....	.....	.....	.....	.....
Salt Creek	.....	.....	.....	.....	.....	.....
South Hayes	.....	.....	.....	.....	.....	.....
Sumner	.....	.....	.....	.....	.....	.....
Sylvia	.....	.....	.....	.....	.....	.....
Troy	.....	.....	.....	.....	.....	.....
Valley	.....	.....	.....	.....	.....	.....
Walnut	.....	.....	.....	.....	.....	.....
Westminster	.....	.....	.....	.....	.....	.....
Yoder	.....	.....	.....	.....	.....	.....
Total	.....	.....	.....	.....	.....	.....

RENO COUNTY—CONCLUDED.

COST OF DRAGGING EARTH ROADS.

	Total mileage.	1917.			1918.		
		Number of miles dragged.	Average cost one round trip.	Total cost.	Number of miles dragged.	Average cost one round trip.	Total cost.
County roads	363						
Township roads	2,041						
Grand total	2,404						
Albion							
Arlington							
Bell							
Castleton							
Center							
Clay							
Enterprise							
Grant							
Grove							
Haven							
Huntsville							
Langdon							
Lincoln							
Little River							
Loda							
Medford							
Medora							
Miami							
Ninnescah							
North Hayes							
Plevna							
Reno							
Roscoe							
Salt Creek							
South Hayes							
Sumner							
Sylvia							
Troy							
Val ey							
Walnut							
Westminster							
Yoder							

REPUBLIC COUNTY.

Commissioners: H. H. Smith, C. G. Aspegren, and E. A. Cory.

County Funds.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
General county road fund						
County motor vehicle license fund						
Donations, subscriptions, etc						
Total road funds						
Total bridge funds				$30,324.76	$15,733.48	$14,591.28
Grand total						

TOWNSHIP ROAD, BRIDGE, DRAG AND POLL-TAX FUNDS.

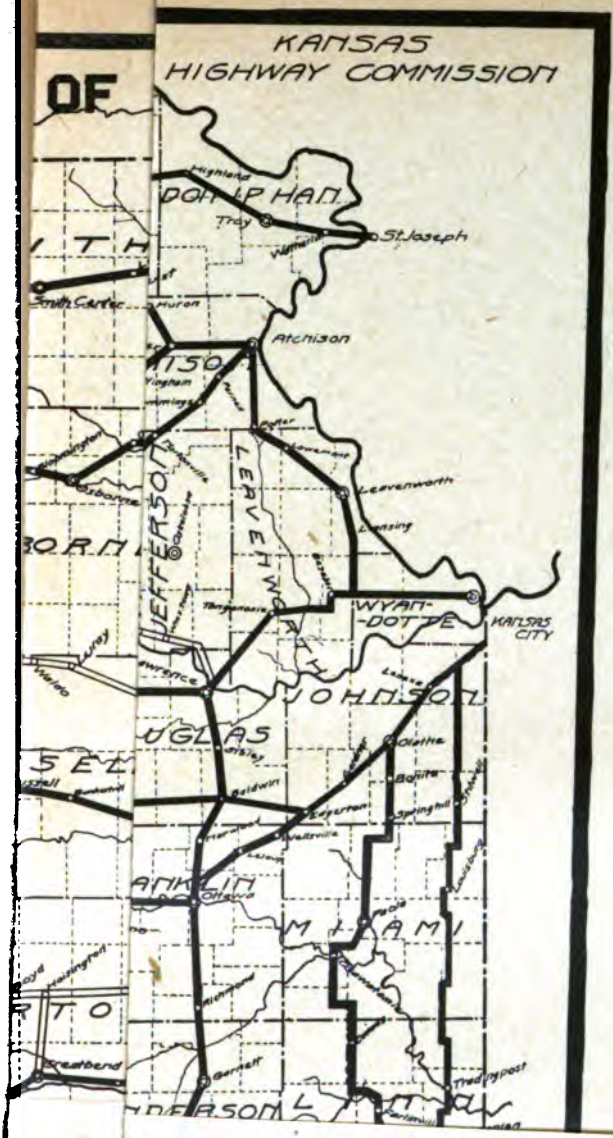
Townships.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
Albion						
Beaver						
Belleville						
Big Bend						
Cortland						
Elk Creek						
Fairview						
Farmington						
Freedom						
Grant						
Jefferson						
Liberty				$2,544.37	$1,205.32	$1,339.05
Lincoln						
Norway						
Richland						
Rose Creek						
Scandia						
Union						
Washington						
White Rock						
Total				$2,544.37	$1,205.32	$1,339.05

COST OF DRAGGING EARTH ROADS.

	Total mileage.	1917.			1918.		
		Number of miles dragged.	Average cost one round trip.	Total cost.	Number of miles dragged.	Average cost one round trip	Total cost.
County roads	203.5						$2,827.36
Township roads	1,191.5			34.25			441.56
Grand total	1,395						$3,268.92
Albion	66						
Beaver	63						
Belleville	48						
Big Bend	63						
Cortland	55						209.50
Elk Creek	62.5						
Fairview	54						
Farmington	56.5						

REPUBLIC COUNTY—CONCLUDED.

	Total mileage.	1917.			1918.		
		Number of miles dragged.	Average cost one round trip.	Total cost.	Number of miles dragged.	Average cost one round trip.	Total cost.
Freedom	67						
Grant	65						$232.06
Jefferson	57.5						
Liberty	60						
Lincoln	54.5						
Norway	55						
Richland	61						
Rose Creek	60						
Scandia	52.5						
Union	73						
Washington	61						
White Rock	57						



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RICE COUNTY.

Commissioners: A. N. Hays, Joseph Horton, and J. L. Folck.

County Funds.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
General county road fund	$29,586.85	$25,330.34	$4,256.51	$13,855.45	$14,867.12	*$1,011.67*
County motor vehicle license fund	7,182.25	6,886.75	295.50	7,473.39	1,956.06	5,517.33
Donations, subscriptions, etc.	.....	.....	.....	.....	.....	.....
Total road funds	$36,769.10	$32,217.09	$4,552.01	$21,328.84	$16,823.18	$4,505.66
Total bridge funds	.....	.....	.....	57,355.06	26,845.27	30,509.79
Grand total	.....	.....	.....	$78,683.90	$43,668.45	$35,015.45

TOWNSHIP ROAD, BRIDGE, DRAG AND POLL-TAX FUNDS.

Townships.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
Atlanta	.....	.....	.....	$870.02	$763.26	$106.76
Bell	.....	.....	.....	1,108.99	93.47	1,015.52
Center	.....	.....	.....	939.00	742.06	196.94
Eureka	.....	.....	.....	1,361.72	1,244.38	117.34
Farmer	.....	.....	.....	1,996.23	1,701.71	294.52
Galt	.....	.....	.....	1,840.00	962.14	877.86
Harrison	.....	.....	.....	2,592.97	1,827.06	765.91
Lincoln	.....	.....	.....	4,750.93	1,057.71	3,693.22
Mitchell	.....	.....	.....	2,306.50	1,617.83	688.67
Odessa	.....	.....	.....	1,009.21	682.74	326.47
Pioneer	.....	.....	.....	2,023.18	1,222.85	800.33
Raymond	.....	.....	.....	2,181.33	1,860.20	321.13
Rockville	.....	.....	.....	1,212.78	368.29	844.49
Sterling	.....	.....	.....	10,771.35	2,605.43	8,165.92
Union	.....	.....	.....	3,101.88	1,765.40	1,336.48
Valley	.....	.....	.....	2,054.18	1,156.77	897.41
Victoria	.....	.....	.....	1,205.60	191.78	1,013.82
Washington	.....	.....	.....	1,735.55	1,040.25	695.30
Wilson	.....	.....	.....	1,863.19	639.50	1,223.69
Total	.....	.....	.....	$44,924.61	$21,542.83	$23,381.78

COST OF DRAGGING EARTH ROADS.

	Total mileage.	1917.			1918.		
		Number of miles dragged.	Average cost one round trip.	Total cost.	Number of miles dragged.	Average cost one round trip.	Total cost.
County roads	177	175	$1.00	$2,699.02	177	$0.75	$1,956.06
Township roads	1,140	.....	.....	.....	372	.70	1,078.68
Grand total	1,317	.....	.....	.....	549	$0.725	$3,034.74
Atlanta	70	.....	.....	.....	40	.....	$127.25
Bell	42	.....	.....	.....	.....	.....	.....
Center	60	.....	.....	.....	30	$0.75	34.12
Eureka	60	.....	.....	.....	.....	.....	.....
Farmer	73.5	.....	.....	.....	.....	.....	.....
Galt	64	.....	.....	.....	23	.75	93.05
Harrison	59.5	.....	.....	.....	22	.75	83.70
Lincoln	.....	.....	.....	.....	19	.....	21.00
Mitchell	65	.....	.....	.....	35	.75	179.74
Odessa	65	.....	.....	.....	30	.....	15.00

RICE COUNTY—CONCLUDED.

	Total mileage.	1917.			1918.		
		Number of miles dragged.	Average cost one round trip.	Total cost.	Number of miles dragged.	Average cost one round trip.	Total cost.
Pioneer	65				18	$0.50	$63.70
Raymond	50						
Rockville							
Sterling						.75	194.62
Union	60				60	.50	30.25
Valley	55				55	.75	84.00
Victoria	60					.75	10.50
Washington					40	.75	141.95
Wilson							

RILEY COUNTY.

Commissioners: I. S. Smith, Geo. W. O'Malley, and Jno. Hanson.

County Funds.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
General county road fund						
County motor vehicle license fund						
Donations, subscriptions, etc						
Total road funds						
Total bridge funds						
Grand total						

TOWNSHIP ROAD, BRIDGE, DRAG AND POLL-TAX FUNDS.

Townships.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
Ashland						
Bala						
Center						
Fancy Creek						
Grant						
Jackson						
Madison						
Manhattan						
May Day						
Ogden						
Seven Mile						
Sherman						
Swede Creek						
Wild Cat						
Zeandale						
Total						

COST OF DRAGGING EARTH ROADS.

	Total mileage.	1917.			1918.		
		Number of miles dragged.	Average cost one round trip.	Total cost.	Number of miles dragged.	Average cost one round trip.	Total cost.
County roads	130						
Township roads	970						
Grand total	1,100						
Ashland							
Bala							
Center							
Fancy Creek							
Grant							
Jackson							
Madison							
Manhattan							
May Day							
Ogden							
Seven Mile							
Sherman							
Swede Creek							
Wild Cat							
Zeandale							

ROOKS COUNTY.

Commissioners: W. G. Thomas, F. W. Hagemeister, and J. E. Robesom.

County Funds.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
General county road fund**	$17,983.29	$3,556.29	$14,427.00	$10,375.90	$2,111.56	$8,264.34
County motor vehicle license fund	8,950.72	3,720.82	5,229.90	8,398.77	5,174.15	3,224.62
Donations, subscriptions, etc	.....	.....	.....	.....	.....	.....
Total road funds	$26,934.01	$7,277.11	$19,656.90	$18,774 67	$7,285.71	$11,488.96
Total bridge funds	.....	.....	.....	18,011.24	8,648.29	9,362.95
Grand total	$26,934.01	$7,277.11	$19,656 90	$36,785.91	$15,934.00	$20,851.91

** Includes bridges in 1917.

TOWNSHIP ROAD, BRIDGE, DRAG AND POLL-TAX FUNDS.

Townships.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
Alcona	$1,192.83	$804.12	$388.71	.....	.....	.....
Ash Rock	1,592.99	645.22	947.77	.....	.....	.....
Belmont	673.10	650.00	23.10	$620.65	$620.65	.....
Bow Creek	1,702.48	1,085.53	616.95	1,555.51	1,389.85	$165.66
Corning	1,747 23	806.39	940.84	2,035.68	1,092.11	943.57
Farmington	1,193.33	1,001.40	191.93	1,365.07	1,190.10	174.97
Greenfield	118.00	100.00	18.00	807.65	611.20	196.45
Hobart	1,082.35	917.69	164.66	1,849.83	1,537.99	311.84
Iowa	1,955.66	1,291.85	663.81	.....	.....	.....
Lanark	.....	.....	.....	.....	.....	.....
Logan	.....	.....	.....	3,779.79	1,339.09	2,440.70
Lowell	.....	.....	.....	2,198.22	1,840.85	357.37
Medicine	.....	.....	.....	.....	.....	.....
Northampton	.....	.....	.....	.....	.....	.....
Paradise	2,078.86	2,078.86	.....	.....	.....	.....
Plainville	.....	.....	.....	.....	.....	.....
Richland	3,364.72	2,253.23	1,111.49	3,095.09	2,750.53	344.56
Rush	1,408.21	.....	1,408.21	.....	.....	.....
Stockton	4,050 20	1,861.11	2,189 09	3,499.56	2,159.22	1,340.34
Sugar Loaf	1,955.31	1,497.05	458.26	.....	.....	.....
Twin Mound	.....	.....	.....	.....	.....	.....
Walton	2,639.98	2,127.39	512.59	1,572.59	1,263.44	309.15
Total	$26,755.25	$17,119.84	$9,635.41	$22;379.64	$15,795.03	$6,584.61

COST OF DRAGGING EARTH ROADS.

	Total mileage.	1917.			1918.		
		Number of miles dragged.	Average cost one round trip.	Total cost.	Number of miles dragged.	Average cost one round trip.	Total cost.
County roads	188	85	$0.60	$954.45	85	$0.75	$1,960.17
Township roads	1,420	97.5	.62	432.50	311	.75	503.07
Grand total	1,608	182.5	0.61	$1,386.95	396	0.75	$2,463.24
Alcona	60	.....	.....	.....	6	$0.50	$3.00
Ash Rock	.....	.....	.....	.....	.....	.....	.....
Belmont	64	.....	.....	.....	37	.75	27.75
Bow Creek	.....	.....	.....	.....	.....	.....	.....
Corning	.....	.....	.....	.....	.....	.....	.....
Farmington	45	34.5	$0.50	$17.25	45	.75	68.90

ROOKS COUNTY—CONCLUDED.

	Total mileage.	1917.			1918.		
		Number of miles dragged.	Average cost one round trip.	Total cost.	Number of miles dragged.	Average cost one round trip.	Total cost.
Greenfield	58	15	$0.50	$30.00	30	$0.75	$89.00
Hobart	.....	.....	.....	.....	65	.....	100.00
Iowa	.....	7	.75	26.25	.....	.....	.....
Lanark	.....	3	.....	9.00	.....	.....	.....
Logan	*67	10	.60	60.00	34	.....	96.92
Lowell	.....	.....	.....	.....	.....	.....	.....
Medicine	.....	.....	.....	.....	.....	.....	.....
Northampton	.....	10	.60	200.00	25	.30	50.00
Paradise	.....	8	.65	75.00	.....	.....	.....
Plainville	.....	.....	.....	.....	.....	.....	.....
Richland	.....	10	.75	15.00	15	.75	11.25
Rush	60	.....	.....	.....	22	.75	16.50
Stockton	.....	.....	.....	.....	7	1.50	21.00
Sugar Loaf	.....	.....	.....	.....	.....	.....	.....
Twin Mound	*72	.....	.....	.....	.....	.....	.....
Walton	121	.....	.....	.....	25	.75	18.75

* Mileage in 1917.

RUSH COUNTY.

Commissioners: Andrew Stremel, Jno. H. Mohr, L. L. Darkes.

County Funds.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
General county road fund*	$11,251.87	$7,862.94	$3,388.93	$9,235.85	$7,077.64	$2,158.21
County motor vehicle license fund	10,751.96	2,602.04	8,149.92	11,023.75	5,009.00	6,014.75
Donations, subscriptions, etc	.....	.....	.....	.....	.....	.....
Total road funds	$22,003.83	$10,464.98	$11,538.85	$20,259.60	$12,086.64	$8,172.96
Total bridge funds	.....	.....	.....	.....	12,395.06	*12,395.06*
Grand total	$22,003.83	$10,464.98	$11,538.85	$20,259.60	$24,481.70	*$4,222 10*

* Includes bridges in 1917.

TOWNSHIP ROAD, BRIDGE, DRAG AND POLL-TAX FUNDS.

Townships.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
Alexander	$1,939.46	$673.27	$1,266.19	$2,276.72	$1,103.80	$1,172.92
Banner	3,415.45	371.91	3,043.54	4,331.21	2,362 36	1,968.85
Belle Prairie	3,194.13	1,275.59	1,918.54	2,084.79	1,638.19	446.60
Big Timber	1,793.64	553.48	1,240.16	2,217.51	525.05	1,692.46
Brook Dale	1,893.92	345.26	1,548.66	1,665.91	490.10	1,175.81
Center	3,481.00	829.16	2,651.84	4,179.68	2,764.86	1,414.82
Fairview	2,062.72	1,296.71	766.01	2,087.98	1,089.41	998.57
Garfield	3,010.93	2,094.72	916.21	3,361.14	2,034.24	1,326.90
Hampton	1,921.88	741.40	1,180.48	3,154.80	1,735.20	1,419.60
Illinois	2,447.31	1,412.73	1,034.58	1,709.42	1,379.48	329.94
Lacrosse	2,141.54	1,325.84	815.70	2,005.08	368.03	1,637.05
Lone Star	1,948.59	824.19	1,124.40	2,144.56	935.05	1,209.51
Pioneer	2,688.30	2,048.68	639.62	2,367.47	1,060.39	1,307.08
Pleasant Dale	1,529.91	824.00	705.91	1,978.31	630.50	1,347.81
Union	3,073.82	741.85	2,331.97	2,396.47	820.47	1,576.00
Total	$36,542.60	$15,358.79	$21,183.81	$37,961.05	$18,937.13	$19,023.92

COST OF DRAGGING EARTH ROADS.

	Total mileage.	1917.			1918.		
		Number of miles dragged.	Average cost one round trip.	Total cost.	Number of miles dragged.	Average cost one round trip.	Total cost.
County roads	178	176	$0.75	$1,122.03	176	$0.75	$2,101.80
Township roads	1,180	80	.725	266.75	62	.75	273.25
Grand total	1,358	256	$0.737	$1,388.78	238	$0.75	$2,375.05
Alexander	69	.....	.....	.....	9	$0.75	$33.75
Banner	92	.....	.....	.....	20	.75	29.75
Belle Prairie	91	7	.....	$28.25	.....	.....	.....
Big Timber	95	.....	.....	.....	.....	.....	.....
Brook Dale	78	.....	.....	.....	.....	.....	.....
Center	81	.....	.....	.....	6	.75	4.50
Fairview	93	.....	.....	.....	.....	.....	.....
Garfield	80	.....	.....	.....	.....	.....	.....
Hampton	89	.....	.....	.....	.....	.....	.....
Illinois	80.5	9	$0.65	33.25	.....	.....	.....
Lacrosse	75	9	.75	84.50	12	.75	132.00
Lone Star	74	.....	.....	.....	.....	.....	.....
Pioneer	69	12	.75	88.50	.....	.....	.....
Pleasant Dale	75	.....	.....	.....	9	.....	40.00
Union	104.5	43	.75	32.25	6	.....	32 25

RUSSELL COUNTY.

Commissioners: J. E. Vroman, Jno. M. Mahoney, and G. J. Deines.

County Funds.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
General county road fund				$17,312.94	$8,723.43	$8,589.51
County motor vehicle license fund				6,109.25	2,127.76	3,981.49
Donations, subscriptions, etc						
Total road funds				$23,422.19	$10,851.19	$12,571.00
Total bridge funds				29,217.60	13,737.45	15,480.15
Grand total				$52,639.79	$24,588.64	$28,051.15

TOWNSHIP ROAD, BRIDGE, DRAG AND POLL-TAX FUNDS.

Townships.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
Big Creek				$2,539.80	$927.83	$1,611.97
Center				5,192.53	4,414.27	778.26
Fairfield				2,270.66	1,175.15	1,095.51
Fairview				3,574.47	2,537.43	1,037.04
Grant				2,929.73	735.98	2,193.75
Lincoln				1,628.69	1,376.03	252.66
Luray				2,653.95	848.36	1,805.59
Paradise				4,675.22	4,012.25	662.97
Plymouth				5,250.92	3,185.10	2,065.82
Russell				2,520.00	1,055.15	1,464.85
Waldo				6,771.06	2,336.39	4,434.67
Winterset				1,500.93	1,105.37	395.56
Total				$41,507.96	$23,709.31	$17,798.65

COST OF DRAGGING EARTH ROADS.

	Total mileage.	1917.			1918.		
		Number of miles dragged.	Average cost one round trip.	Total cost.	Number of miles dragged.	Average cost one round trip.	Total cost.
County roads	173.75				155.5		$2,090.91
Township roads	1,326.5						
Grand total	1,500.25						
Big Creek	116						
Center	220						
Fairfield	60						
Fairview	102.5						
Grant	98						
Lincoln	71						
Luray	109.5						
Paradise	170						
Plymouth	155						
Russell	65.5						
Waldo	96						
Winterset	63						

SALINE COUNTY.

Commissioners: Thomas Anderson, E. B. Ericson, and R. F. Dearing.

County Funds.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
General county road fund	$9,702.39	$7,280.00	$2,422.39	$28,653.93	$16,655.13	$11,998.80
County motor vehicle license fund	.....	2,111.00	*2,111.00*	12,807.95	3,256.51	9,551.44
Donations, subscriptions, etc	.....	.....	.....	.....	.....	.....
Total road funds	$9,702.39	$9,391.00	$311.39	$41,461.88	$19,911.64	$21,550.24
Total bridge funds	9,702.39	16,710.56	*7,008.17*	16,918.49	15,948.96	969.53
Grand total	$19,404.78	$26,101.56	*$6,696.78*	$58,380.37	$35,860.60	$22,519.77

TOWNSHIP ROAD, BRIDGE, DRAG AND POLL-TAX FUNDS.

Townships.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
Cambria	.....	.....	.....	$3,090.49	$2,661.97	$428.52
Dayton	.....	.....	.....	.....	.....	.....
Elm Creek	.....	.....	.....	2,838.95	1,654.01	1,184.94
E reka	.....	.....	.....	.....	.....	.....
Falun	.....	.....	.....	2,072.89	1,242.27	830.62
Glendale	.....	.....	.....	.....	.....	.....
Greeley	.....	.....	.....	2,251.04	1,045.87	1,205.17
Gypsum	.....	.....	.....	4,214.32	4,562.00	*348.68*
Liberty	.....	.....	.....	2,897.51	2,599.91	297.60
Ohio	.....	.....	.....	1,140.44	955.53	184.91
Pleasant Valley	.....	.....	.....	.....	.....	.....
Smoky Hill	.....	.....	.....	.....	.....	.....
Smoky View	.....	.....	.....	.....	.....	.....
Smolan	.....	.....	.....	3,501.99	3,238.70	263.29
Solomon	.....	.....	.....	.....	.....	.....
Spring	.....	.....	.....	.....	.....	.....
Summit	.....	.....	.....	.....	.....	.....
Walnut	.....	.....	.....	.....	.....	.....
Washington	.....	.....	.....	.....	.....	.....
Total	.....	.....	.....	$22,007.63	$17,961.26	$4,046.37

COST OF DRAGGING EARTH ROADS.

	Total mileage.	1917.			1918.		
		Number of miles dragged.	Average cost one round trip.	Total cost.	Number of miles dragged.	Average cost one round trip.	Total cost.
County roads	155	.....	.....	$2,111.00	116	$0.75	$3,256.51
Township roads	1,260	.....	.....	.....	.....	.....	.....
Grand total	1,415	.....	.....	.....	.....	.....	.....
Cambria	.....	.....	.....	.....	.....	.....	.....
Dayton	.....	.....	.....	.....	.....	.....	.....
Elm Creek	.....	.....	.....	.....	.....	.....	.....
E reka	.....	.....	.....	.....	.....	.....	.....
Falun	.....	.....	.....	.....	.....	.....	.....
Glendale	.....	.....	.....	.....	.....	.....	.....
Greeley	.....	.....	.....	.....	.....	.....	.....
Gypsum	.....	.....	.....	.....	.....	.....	.....
Liberty	.....	.....	.....	.....	.....	.....	.....
Ohio	.....	.....	.....	.....	.....	.....	.....

SALINE COUNTY—CONCLUDED.

	Total mileage.	1917.			1918.		
		Number of miles dragged.	Average cost one round trip.	Total cost.	Number of miles dragged.	Average cost one round trip.	Total cost.
Pleasant Valley							
Smoky Hill							
Smoky View							
Smolan							
Solomon							
Spring							
Summit							
Walnut							
Washington							

SCOTT COUNTY.

Commissioners: Geo. H. Rhodes, C. A. Hull, and E. M. Taylor.

County Funds.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
General county road fund	.....	.....	.....	$2,103.67	$2,060.12	$43.55
County motor vehicle licence fund	.....	.....	.....	1,396.78	633.10	763.68
Donations, subscriptions, etc	.....	.....	.....	.....	.....	.....
Total road funds	.....	.....	.....	$3,500.45	$2,693.22	$807.23
Total bridge funds	.....	.....	.....	772.63	799.54	*26.91*
Grand total	.....	.....	.....	$4,273.08	$3,492.76	$780 32

TOWNSHIP ROAD, BRIDGE, DRAG AND POLL-TAX FUNDS.

Townships.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
Beaver	$610.75	$513.50	$97.25	$661.25	$661.25	.....
Isabel	367.53	263.11	104.42	338.91	105.60	233.31
Keystone	.....	.....	.....	814.25	694.91	119.34
Lake	.....	.....	.....	353.14	422.81	*69.67*
Michigan	.....	.....	.....	960.57	945.56	15.01
Scott	.....	.....	.....	1,460.70	754.18	706.52
Valley	.....	.....	.....	899.34	569.96	329.38
Total	$978.28	$776.61	$201.67	$5,488.16	$4,154.27	$1,333.89

COST OF DRAGGING EARTH ROADS.

	Total mileage.	1917.			1918.		
		Number of miles dragged.	Average cost one round trip.	Total cost.	Number of miles dragged.	Average cost one round trip.	Total cost.
County roads	54.5	54.5	$0.75	$123.22	54.5	$0.75	$528.49
Township roads	351	.....	.....	86.24	.....	.75	$35.56
Grand total	405.5	.....	.....	$209.46	.....	$0.75	$864.05
Beaver	46.5	.....	.....	.....	.....	.....	.....
Isabel	50.5	.....	.....	.....	.....	.....	$21.75
Keystone	48	.....	.....	.....	.....	$0.75	30.00
Lake	21.5	.....	.....	.....	.....	.....	19.80
Michigan	63	.....	.....	.....	.....	.....	.....
Scott	61	.....	.....	$86.24	22	.75	156.17
Valley	82	.....	.....	.....	.....	.....	107.75

SEDGWICK COUNTY.

Commissioners: C. W. Simmons, W. H. Henrion, and F. C. Jorgensen.

County Funds.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
General county road fund	$84,272.80	$70,585.88	$13,686.92	$31,121.87	$30,803.07	$318.80
County motor vehicle license fund	.....	.....	.....	78,967.89	33,755.48	45,212.41
Donations, subscriptions, etc.	.....	.....	.....	700.00	693.88	6.12
Total road funds	$84,272.80	$70,585.88	$13,686.92	$110,789.76	$65,252.43	$45,537.33
Total bridge funds	45,997.29	32,310.93	13,686.36	44,0 6.58	30,853.96	13,182.62
Grand total	$130,270.09	$102,896.81	$27,373.28	$154,826.34	$96,106.39	$58,719.95

TOWNSHIP ROAD, BRIDGE, DRAG AND POLL-TAX FUNDS.

Townships.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
Afton	$2,066.39	$1,841.76	$224.63	$2,998.08	$2,046.34	$951.74
Attica	1,299.15	1,200.00	99.15	2,696.24	603.32	2,092.92
Delano	.....	.....	.....	1,024.00	957.27	66.73
Eagle	1,588.42	1,193.04	395.38	1,943.68	1,656.13	287.55
Erie	.....	.....	.....	2,985.67	1,818.35	1,167.32
Garden Plain	3,388.46	1,397.55	1,990.91	2,793.16	621.47	2,171.69
Grand River	1,958.05	761.92	1,196.13	2,479.15	1,272.09	1,207.06
Grant	3,995.11	2,084.56	1,910.55	4,899.37	836.76	4,062.61
Greeley	.....	.....	.....	3,470.01	1,811.64	1,658.37
Gypsum	1,590.42	1,240.31	350.11	1,190.11	927.44	262.67
Illinois	2,414.48	2,118.50	295.98	1,734.44	1,486.61	247.83
Kechi	.....	.....	.....	6,040.11	2,225.32	3,814.79
Lincoln	.....	.....	.....	4,298 03	1,984.43	2,313.60
Minneha	162.00	162.00	.....	1,453.55	1,742.84	*289.29*
Morton	1,811.72	25.00	1,786.72	.....	.....	.....
Ninnescah	3,153.00	902.53	2,250.47	6,789.92	2,910.58	3,879.34
Ohio	6,375.17	4,651.36	1,723.81	4,495.79	1,440.45	3,055.34
Park	.....	.....	.....	2,563.36	2,240.26	323.10
Payne	.....	.....	.....	2,212.52	1,450.97	761.55
Riverside	2,141.49	1,317.42	824.07	4,556.49	3,269.38	1,287.11
Rockford	3,373.43	2,181.57	1,191.86	5,665.53	3,661.45	2,004.08
Salem	1,369.56	1,090.98	278.58	755.03	889.93	*134.90*
Sherman	3,401.25	2,165.78	1,235.47	3,900.13	3,795.85	104.28
Union	3,505.42	98.00	3,407.42	2,191.32	668.65	1,522.67
Valley Center	5,365.90	4,605.21	760.69	7,957.59	5,664.02	2,293.57
Viola	.....	.....	.....	4,473.14	3,325.59	1,147.55
Waco	2,182.14	1,378.57	803.57	2,920.68	2,209.41	711.27
Wichita	3,260.50	2,214.25	1,046.25	2,536.84	1,710.66	826.18
Total	$54,402.06	$32,630.31	$21,771.75	$91,023.94	$53,227.21	$37,796.73

COST OF DRAGGING EARTH ROADS.

	Total mileage.	1917.			1918.		
		Number of miles dragged.	Average cost one round trip.	Total cost.	Number of miles dragged.	Average cost one round trip.	Total cost.
County roads	208.07	115	$0.78	$6,471.20	139.41	$0.79	$9,282.65
Township roads	1,750.85	810.5	.594	4,161.40	314	.707	7,097.74
Grand total	1,958.92	925.5	$0.687	$10,632.60	453.41	$0.749	$16,380.39
Afton	66	54	$0.50	$135.75	.....	.....	$123.25
Attica	64	.....	.....	.....	.....	.....	128.25

SEDGWICK COUNTY—Concluded.

	Total mileage.	1917.			1918.		
		Number of miles dragged.	Average cost one round trip.	Total cost.	Number of miles dragged.	Average cost one round trip.	Total cost.
Delano	57	57	$0.75	$150.00	.....	.....	$211.17
Eagle	66	.....	.....	.....	.....	.....	81.72
Erie	72	.....	.....	.....	22	.....	30.25
Garden Plain	66	66	.50	73.25	.....	.....	42.89
Grand River	60	.....	.50	25.00	.....	.....	.....
Grant	65	65	.50	530.00	50	$0.75	248.50
Greeley	54	.....	.....	.....	.....	.....	194.35
Gypsum	65.5	38	.50	276.30	50	.....	334.59
Illinois	72	32	1.00	192.00	32	.....	192.00
Kechi	63	.....	.....	.....	.....	.....	334.33
Lincoln	74	38.5	.50	185.75	50	.50	200.00
Minneha	66	30	.50	360.00	31	.75	483.50
Morton	68	36	.50	108.00	.....	.....	225.68
Ninnescah	58	40	.75	120.00	.....	.....	512.25
Ohio	69	.....	.....	225.00	.....	.....	142.27
Park	61	.....	.....	.....	.....	.....	369.57
Payne	66	15	.50	90.00	.....	.....	333.00
Riverside	42	42	.75	216.00	.....	.....	413.89
Rockford	63	45	.50	600.00	46	.....	452.93
Salem	42	42	.60	248.25	33	.....	352.27
Sherman	68	40	.50	140.00	.....	.....	460.06
Union	63	63	.60	.....	.....	.75	372.75
Valley Center	72	72	.75	334.65	.....	.785	304.68
Viola	59	.....	.....	.....	.....	.....	81.72
Waco	57	.....	.....	35.00	.....	.....	269.13
Wichita	52.35	35	.....	116.45	.....	.....	202.74

SEWARD COUNTY.

Commissioners: W. W. Antrim, J. F. Fuest, and H. D. Massoni.

County Funds.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
General county road fund						
County motor vehicle license fund						
Donations, subscriptions, etc						
Total road funds						
Total bridge funds						
Grand total						

TOWNSHIP ROAD, BRIDGE, DRAG AND POLL-TAX FUNDS.

Townships.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
Fargo						
Liberal						
Seward						

COST OF DRAGGING EARTH ROADS.

	Total mileage.	1917.			1918.		
		Number of miles dragged.	Average cost one round trip.	Total cost.	Number of miles dragged.	Average cost one round trip.	Total cost.
County roads	76						
Township roads	220						
Grand total	296						
Fargo							
Liberal							
Seward							

SHAWNEE COUNTY.

Commissioners: Boyd E. Pollom, A. A. Rodgers, H. W. McAfee.

County Funds.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
General county road fund						
County motor vehicle license fund						
Donations, subscriptions, etc.						
Total road funds						
Total bridge funds						
Grand total						

TOWNSHIP ROAD, BRIDGE, DRAG AND POLL-TAX FUNDS.

Townships.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
Auburn						
Dover						
Menoken						
Mission						
Monmouth						
Rossville						
Silver Lake						
Soldier						
Tecumseh						
Topeka						
Williamsport						
Total						

COST OF DRAGGING EARTH ROADS.

	Total mileage.	1917.			1918.		
		Number of miles dragged.	Average cost one round trip.	Total cost.	Number of miles dragged.	Average cost one round trip.	Total cost.
County roads	228.5						$5,433.59
Township roads	757.5						2,315.97
Grand total	986						$7,749.56
Auburn							$296.34
Dover							102.00
Menoken							
Mission							374.28
Monmouth							153.92
Rossville							
Silver Lake							713.48
Soldier							
Tecumseh							
Topeka							5.25
Williamsport							670.69

SHERIDAN COUNTY.

Commissioners: H. E. Cressler, E. R. Russell, and W. H. Comstock.

County Funds.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
General county road fund.	$13,537.10	$5,990.58	$7,546.52	$10,374.43	$9,156.86	$1,217.57
County motor vehicle license fund	1,584.00	.....	1,584.00	3,471.61	126.81	3,344.80
Donations, subscriptions, etc.	.....	.....	.....	.....	.....	.....
Total road funds	$15,121.10	$5,990.58	$9,130.52	$13,846.04	$9,283.67	$4,562.37
Total bridge funds	.....	.....	.....	5,607.76	3,672.22	1,935.54
Grand total	.....	.....	.....	$19,453.80	$12,955.89	$6,497.91

TOWNSHIP ROAD, BRIDGE, DRAG AND POLL-TAX FUNDS.

Townships.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
Adell	.....	.....	.....	.....	.....	.....
Bloomfield	.....	.....	.....	.....	.....	.....
Bow Creek	.....	.....	.....	.....	.....	.....
Kenneth	.....	.....	.....	.....	.....	.....
Logan	.....	.....	.....	.....	.....	.....
Parnell	.....	.....	.....	.....	.....	.....
Prairie Dog	.....	.....	.....	.....	.....	.....
Saline	.....	.....	.....	.....	.....	.....
Sheridan	.....	.....	.....	.....	.....	.....
Solomon	.....	.....	.....	.....	.....	.....
Spring Brook	.....	.....	.....	.....	.....	.....
Union	.....	.....	.....	.....	.....	.....
Valley	.....	.....	.....	.....	.....	.....
Total	.....	.....	.....	.....	.....	.....

COST OF DRAGGING EARTH ROADS.

	Total mileage.	1917.			1918.		
		Number of miles dragged.	Average cost one round trip.	Total cost.	Number of miles dragged.	Average cost one round trip.	Total cost.
County roads	155.5	.....	.....	.....	45	$0.75	$239.79
Township roads	1,396.00	.....	.....	.....	.....	.....	.....
Grand total	1,551 5	.....	.....	.....	.....	.....	.....
Adell		.....	.....	.....	.....	.....	.....
Bloomfield		.....	.....	.....	.....	.....	.....
Bow Creek		.....	.....	.....	.....	.....	.....
Kenneth		.....	.....	.....	.....	.....	.....
Logan		.....	.....	.....	.....	.....	.....
Parnell		.....	.....	.....	.....	.....	.....
Prairie Dog		.....	.....	.....	.....	.....	.....
Saline		.....	.....	.....	.....	.....	.....
Sheridan		.....	.....	.....	.....	.....	.....
Solomon		.....	.....	.....	.....	.....	.....
Spring Brook		.....	.....	.....	.....	.....	.....
Union		.....	.....	.....	.....	.....	.....
Valley		.....	.....	.....	.....	.....	.....

SHERMAN COUNTY.

Commissioners: C. C. Kipps, Elmer E. Hartwell, and J. J. Sexson.

County Funds.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
General county road fund*	$8,175.65	$7,728.38	$447.27	$5,253.08	$6,950.52	$1,697.44
County motor vehicle license fund	.....	.....	.....	1,500.00	.....	1,500.00
Donations, subscriptions, etc	.....	.....	.....	.....	.....	.....
Total road funds	$8,175.65	$7,728.38	$447.27	$6,753.08	$6,950.52	$197.44
Total bridge funds	.....	.....	.....	$36,961.07	$26,771 76	$10,189.31
Grand total	$8,175.65	$7,728.38	$447.27	$43,714.15	$33,722.28	$9,991.87

* Includes bridges in 1917.

TOWNSHIP ROAD, BRIDGE, DRAG AND POLL-TAX FUNDS.

Townships.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
Grant	.....	.....	.....	.....	.....	.....
Iowa	.....	.....	.....	.....	.....	.....
Itasca	.....	.....	.....	.....	.....	.....
Lincoln	.....	.....	.....	.....	.....	.....
Llanos	.....	.....	.....	.....	.....	.....
Logan	.....	.....	.....	.....	.....	.....
McPherson	.....	.....	.....	.....	.....	.....
Shermansville	.....	.....	.....	.....	.....	.....
Smoky	.....	.....	.....	.....	.....	.....
State Line	.....	.....	.....	.....	.....	.....
Union	.....	.....	.....	.....	.....	.....
Voltaire	.....	.....	.....	$1,502.16	$1,502.16	.....
Washington	.....	.....	.....	.....	.....	.....
Total	.....	.....	.....	$1,502.16	$1,502.16	.....

COST OF DRAGGING EARTH ROADS.

	Total mileage.	1917.			1918.		
		Number of miles dragged.	Average cost one round trip.	Total cost.	Number of miles dragged.	Average cost one round trip.	Total cost.
County roads	63	70	$0.75	$424.15	.....	.....	.....
Township roads	117	.....	.....	.....	10	$0.75	$7.50
Grand total	180	.....	.....	.....	.....	.....	.....
Grant	.....	.....	.....	.....	.....	.....	.....
Iowa	.....	.....	.....	.....	.....	.....	.....
Itasca	.....	.....	.....	.....	.....	.....	.....
Lincoln	.....	.....	.....	.....	.....	.....	.....
Llanos	.....	.....	.....	.....	.....	.....	.....
Logan	.....	.....	.....	.....	.....	.....	.....
McPherson	.....	.....	.....	.....	.....	.....	.....
Shermansville	.....	.....	.....	.....	.....	.....	.....
Smoky	.....	.....	.....	.....	.....	.....	.....
State Line	.....	.....	.....	.....	.....	.....	.....
Union	.....	.....	.....	.....	.....	.....	.....
Voltaire	39	.....	.....	.....	10	$0.75	$7.50
Washington	.....	.....	.....	.....	.....	.....	.....

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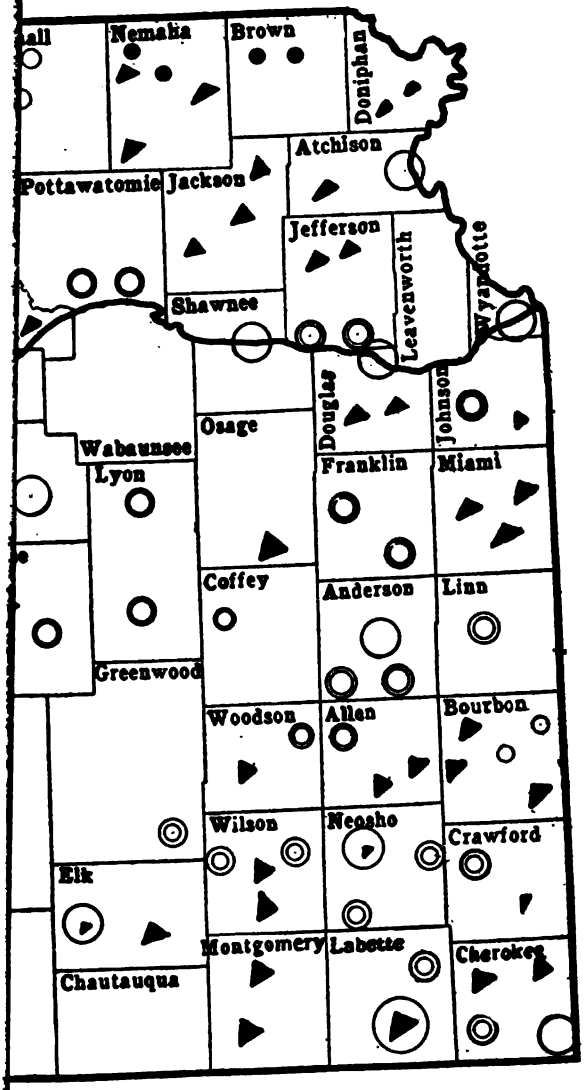

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urated sandstone

Sites for crushers-Limestone and glacial granite

Commercial plants

SMITH COUNTY.

Commissioners: M. T. Shields, J. L. Wolfe, and Albert Dilsaver.

County Funds.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
General county road fund						
County motor vehicle license fund						
Donations, subscriptions, etc						
Total road funds						
Total bridge funds						
Grand total						

TOWNSHIP ROAD, BRIDGE, DRAG AND POLL-TAX FUNDS.

Townships.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
Banner						
Beaver						
Blaine						
Cedar						
Center						
Cora						
Crystal Plains						
Dor						
Garfield						
German						
Harlan						
Harvey						
Houston						
Lane						
Lincoln						
Logan						
Martin						
Oak						
Pawnee						
Pleasant						
Swan						
Valley						
Washington						
Webster						
White Rock						
Total						

COST OF DRAGGING EARTH ROADS.

	Total mileage.	1917.			1918.		
		Number of miles dragged.	Average cost one round trip.	Total cost.	Number of miles dragged.	Average cost one round trip.	Total cost.
County roads	181						
Township roads	1,639						
Grand total	1,820						
Banner							
Beaver							
Blaine							

SMITH COUNTY—CONCLUDED.

	Total mileage.	1917.			1918.		
		Number of miles dragged.	Average cost one round trip.	Total cost.	Number of miles dragged.	Average cost one round trip.	Total cost.
Cedar							
Center							
Cora							
Crystal Plains							
Dor							
Garfield							
German							
Harlan							
Harvey							
Houston							
Lane							
Lincoln							
Logan							
Martin							
Oak							
Pawnee							
Pleasant							
Swan							
Valley							
Washington							
We'ster							
White Rock							

STAFFORD COUNTY.

Commissioners: J. Will Horn, R. C. Gates, and Geo. M. Smith.

County Funds.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
General county road fund				$11,818.64	$4,026.77	$7,791.87
County motor vehicle license fund				5,630.15	2,684.50	2,945.65
Donations, subscriptions, etc						
Total road funds				$17,448.79	$6,711.27	$10,737.52
Total bridge funds						
Grand total						

TOWNSHIP ROAD, BRIDGE, DRAG AND POLL-TAX FUNDS.

Townships.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
Albano				$3,184.53	$586.13	$2,598.40
Byron				2,679.41	370.85	2,308.56
Clear Creek				1,394.82	286.02	1,108.80
Cleveland				1,403.61	807.08	596.53
Douglas				530.44	163.06	367.38
East Cooper						
Fairview						
Farmington						
Hayes				985.00	934.66	50.34
Lincoln						
Ohio				4,379.50	1,463 58	2,915.92
Putnam				1,793.74	934.68	859.06
Richland				1,041.94	791.15	250.79
Rose Valley						
St. John				4,069.91	1,612.92	2,456.99
Seward				3,847.70	2,075.35	1,772.35
Stafford				6,017.51	1,688.42	4,329 09
Union				2,289.59	714.68	1,574.91
West Cooper				1,687.43	312.38	1,375.05
York				1,397.79	791.09	606.70
Total				$36,702 92	$13,533.05	$23,170.87

COST OF DRAGGING EARTH ROADS.

	Total mileage.	1917.			1918.		
		Number of miles dragged.	Average cost one round trip.	Total cost.	Number of miles dragged.	Average cost one round trip.	Total cost.
County roads	188				200	$0.75	$2,684.50
Township roads	1,312						
Grand total	1,500						
Albano	38						
Byron	45						
Clear Creek	38						
Cleveland	30						
Douglas	45						
East Cooper							
Fairview							
Farmington							

STAFFORD COUNTY—Concluded.

	Total mileage	1917.			1918.		
		Number of miles dragged.	Average cost one round trip.	Total cost.	Number of miles dragged.	Average cost one round trip.	Total cost.
Hayes	30	.....	.....	.....	.....	.....	.....
Lincoln	.....	.....	.....	.....	.....	.....	.....
Ohio	27	.....	.....	.....	.....	.....	.....
Putnam	35	.....	.....	.....	.....	.....	.....
Richland	40	.....	.....	.....	.....	.....	.....
Rose Valley	.....	.....	.....	.....	.....	.....	.....
St. John	48	.....	.....	.....	.....	.....	.....
Seward	80	.....	.....	.....	.....	.....	.....
Stafford	40	.....	.....	.....	.....	.....	.....
Union	40	.....	.....	.....	.....	.....	.....
West Cooper	48	.....	.....	.....	.....	.....	.....
York	38	.....	.....	.....	.....	.....	.....

STANTON COUNTY.

Commissioners: Grant Raney, W. E. Wright, and Robert R. Friend.

County Funds.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
General county road fund						
County motor vehicle license fund						
Donations, subscriptions, etc.						
Total road funds						
Total bridge funds						
Grand total						

TOWNSHIP ROAD, BRIDGE, DRAG AND POLL-TAX FUNDS.

Townships.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
Mitchell						
Roanoke						
Stanton						
Total						

COST OF DRAGGING EARTH ROADS.

	Total mileage.	1917.			1918.		
		Number of miles dragged.	Average cost one round trip.	Total cost.	Number of miles dragged.	Average cost one round trip.	Total cost.
County roads	54.5						
Township roads	248.5						
Grand total	303						
Mitchell							
Roanoke							
Stanton							

STEVENS COUNTY.

Commissioners: A. J. Schmoock, N. J. Madden, and Harry Brown.

County Funds.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
General county road fund	.....	.....	.....	$2,560.05	$3,285 94	$725.89
County motor vehicle license fund	.....	.....	.....	759.00	22.31	736 69
Donations, subscriptions, etc	.....	.....	.....	.....	.....	.....
Total road funds	.....	.....	.....	$3,319.05	$3,308.25	$10.80
Total bridge funds	.....	.....	.....	.....	.....	.....
Grand total	.....	.....	.....	.....	.....	.....

TOWNSHIP ROAD, BRIDGE, DRAG AND POLL-TAX FUNDS.

Townships.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
Center	.....	.....	.....	$881.87	$881.87	.....
Harmony	.....	.....	.....	901.88	662.27	$239.61
Voorhees	.....	.....	.....	1,277 15	482.82	794.33
Total	.....	.....	.....	$3,060.90	$2,026.96	$1,033.94

COST OF DRAGGING EARTH ROADS.

	Total mileage.	1917.			1918.		
		Number of miles dragged.	Average cost one round trip.	Total cost.	Number of miles dragged.	Average cost one round trip.	Total cost.
County roads	94	.....	.....	.....	.....	.....	.....
Township roads	489	.....	.....	.....	4	.....	$5.75
Grand total	583	.....	.....	.....	.....	.....	.....
Center	172	.....	.....	.....	4	.....	$5.76
Harmony	151	.....	.....	.....	.....	.....	.....
Voorhees	166	.....	.....	.....	.....	.....	.....

SUMNER COUNTY.

Commissioners: Evan Richards, Fred Barnes, and L. B. Stump.

County Funds.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
General county road fund	$23,364.17	$16,125.65	$7,238.52	$17,664.63	$9,099.24	$8,565.39
County motor vehicle license fund	1,775.25	8,400.00	*6,624.75*	11,081.33	7,487.44	3,593.89
Donations, subscriptions, etc.	12.74	.....	12.74	73.68	.....	73.68
Total road funds	$25,152.16	$24,525.65	$626.51	$28,819.64	$16,586.68	$12,232.96
Total bridge funds	24,854.19	11,906.47	12,947.72	36,961.07	26,771.76	10,189.31
Grand total	$50,006.35	$36,432.12	$13,574.23	$65,780.71	$43,358.44	$22,422.27

TOWNSHIP ROAD, BRIDGE, DRAG AND POLL-TAX FUNDS.

Townships.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
Avon	$2,471.78	$1,179.99	$1,300.79	$3,375.92	$1,730.41	$1,645.51
Belle Plaine	2,400.00	933.34	1,466.66	5,451.97	1,916.64	3,535.33
Bluff	3,400.50	3,091.16	309 34	5,311.32	4,446.01	865.31
Caldwell	.....	.....	.....	.....	.....	.....
Chicaskia	.....	.....	.....	.....	.....	.....
Conway	.....	.....	.....	.....	.....	.....
Creek	2,016.26	1,550.22	466.04	3,069.28	2,214.49	854.79
Dixon	1,483 68	1,366.01	117.67	.....	.....	.....
Downs	2,423 83	674.55	1,749.28	.....	.....	.....
Eden	1,981.07	1,212 32	768.75	.....	.....	.....
Falls	.....	.....	.....	.....	.....	.....
Gore	.....	.....	.....	.....	.....	.....
Greene	.....	.....	.....	.....	.....	.....
Guelph	.....	.....	.....	.....	.....	.....
Harmon	.....	.....	.....	.....	.....	.....
Illinois	1,737.41	1,526.02	211.39	1,300.73	1,087.70	213.03
Jackson	.....	.....	.....	.....	.....	.....
London	.....	.....	.....	.....	.....	.....
Morris	2,392.82	3,562 08	*1,169.26*	.....	.....	.....
Osborn	2,312.88	1,775.09	537.79	.....	.....	.....
Oxford	3,712.42	1,191.72	2,520.70	4,936.74	2,059.40	2,877.34
Palestine	2,345.93	1,155.97	1,189.96	2,449.93	74.00	2,375.93
Ryan	1,421.09	544.89	876.20	.....	.....	.....
Seventy-six	.....	.....	.....	.....	.....	.....
South Haven	1,988.25	1,210.55	777.70	.....	.....	.....
Springdale	.....	.....	.....	.....	.....	.....
Sumner	1,939.57	1,527.14	412.43	.....	.....	.....
Valverde	692.38	570.69	121.69	.....	.....	.....
Walton	4,191.95	2,350.00	1,841.95	7,129.01	3,411.94	3,717.07
Wellington	3,067.80	1,668.05	1,399.75	3,052.90	1,510 49	1,542.41
Total	$41,979.62	$27,080.79	$14,898.83	$36,077.80	$18,451.08	$17,626.72

COST OF DRAGGING EARTH ROADS.

	Total mileage.	1917.			1918.		
		Number of miles dragged.	Average cost one round trip.	Total cost.	Number of miles dragged.	Average cost one round trip.	Total cost.
County roads	315	280	$0.60	$8,400.00	297	$0.75	$7,487.44
Township roads	1,990	445.6	.505	1,967 77	199.3	.59	1,940.11
Grand total	2,305	725.6	$0.552	$10,367.77	496.3	$0.67	$9,427.55
Avon	61.25	40	$0.50	$222.50	32	$0.60	$240.00

SUMNER COUNTY—CONCLUDED.

	Total mileage.	1917.			1918.		
		Number of miles dragged.	Average cost one round trip.	Total cost.	Number of miles dragged.	Average cost one round trip.	Total cost.
Belle Plaine	84	26	$0.50	$79 50	32	$0.60	$295.80
Bluff	93	32	.50	288 00	69.3	.50	104.00
Caldwell	.....	40	.50	160.00	.....	.....	.....
Chicaskia	.....	.....	.....	.....	.....	.....	.....
Conway	.....	.....	.....	.....	.....	.....	.....
Creek	67	.....	.....	.....	.....	.....	.....
Dixon	.....	.....	.....	.....	.....	.....	.....
Downs	.....	63	.50	31.25	.....	.....	.....
Eden	.....	.....	.....	.....	.....	.....	.....
Falls	.....	.....	.....	.....	.....	.....	.....
Gore	*59	59	.50	189.00	.....	.....	.....
Greene	.....	.....	.....	.....	.....	.....	.....
Guelph	.....	.....	.....	.....	.....	.....	.....
Harmon	.....	.....	.....	.....	.....	.....	.....
Illinois	.....	.....	.....	.....	.....	.....	252.35
Jackson	.....	.....	.....	.....	.....	.....	.....
London	.....	.....	.....	.....	.....	.....	.....
Morris	*60	.....	.....	.....	.....	.....	.....
Osborne	.....	30	.50	142.75	.....	.....	.....
Oxford	59	35	.50	216.25	36	.60	336.60
Palestine	36.25	18	.55	72.00	.....	.60	141.00
Ryan	*51.5	.....	.....	.....	.....	.....	.....
Seventy-six	.....	21.6	.50	173.00	.....	.....	.....
South Haven	*84.5	.....	.....	.....	.....	.....	.....
Springdale	.....	.....	.....	.....	.....	.....	.....
Sumner	*60.5	18	.50	67.90	.....	.....	.....
Valverde	*61	6	.50	23 50	.....	.....	.....
Walton	86	30	.50	120.00	30	.50	240.00
Wellington	38	27	.52	82.12	.....	.75	330.36

* Mileage in 1917.

THOMAS COUNTY.

Commissioners: Roy Leak, E. P. Stevens, and Fred H. Horney.

County Funds.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
General county road fund				$4,472.22	$3,755.71	$716.51
County motor vehicle license fund				2,715.50		2,715.50
Donations, subscriptions, etc						
Total road funds				$7,187.72	$3,755.71	$3,432.01
Total bridge funds						
Grand total						

TOWNSHIP ROAD, BRIDGE, DRAG AND POLL-TAX FUNDS.

Townships.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
Barrett				$1,294.24	$892.15	$402.09
Hale				392.32	158.53	233.79
Kingery				1,456.62	910.87	545.75
Lacey				1,207.48	761.31	446.17
Menlo				1,228.29	632.64	595.65
Morgan				1,883.19	882.38	1,000.81
North Randall				1,438.80	469.99	968.81
Revohl				965.15	782.14	183.01
Smith				874.17	699.60	174.57
South Randall				1,518.35	1,241.10	277.25
Summers				1,122.11	1,120.83	1.28
Wendell				381.00	200.90	180.10
Total				$13,761.72	$8,752.44	$5,009.28

COST OF DRAGGING EARTH ROADS.

	Total mileage.	1917.			1918.		
		Number of miles dragged.	Average cost one round trip.	Total cost.	Number of miles dragged.	Average cost one round trip.	Total cost.
County roads	88				54	$0.75	$675.41
Township roads	2,072				19.5	.75	59.15
Grand total	2,160				73.5	$0.75	$734.56
Barrett							
Hale							
Kingery							
Lacey					11	$0.75	$33.65
Menlo							
Morgan							
North Randall							
Revohl					8.5	.75	25.50
Smith							
South Randall							
Summers							
Wendell							

TREGO COUNTY.

Commissioners: Jno. McNaughton, A. H. Hamm, and S. A. Newcomer.

County Funds.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
General county road fund.	$4,738.31	$2,499.30	$2,239.01	$7,893.36	$4,977.07	$2,916.29
County motor vehicle license fund	1,652.50	.....	1,652.50	4,099.62	1,360.52	2,739.10
Donations, subscriptions, etc	.....	.....	.....	.....	.....	.....
Total road funds	$6,390.81	$2,499.30	$3,891.51	$11,992.98	$6,337.59	$5,655.39
Total bridge funds	4,306.12	6,364.15	*2,058.03*	8,038.27	8,072.35	*34.08*
Grand total	$10,696.93	$8,863.45	$1,833.48	$20,031.25	$14,409.94	$5,621.31

TOWNSHIP ROAD, BRIDGE, DRAG AND POLL-TAX FUNDS.

Townships.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures	Balance.
Collver	$3,707.75	$6,160.34	*$2,452.59*	$6,252.28	$6,252.28	.....
Franklin	976.65	730.00	246.65	1,413.70	1,793.90	*$380.20*
Glencoe	921.79	750.00	171.79	1,420.05	907.61	512.44
Ogallah	2,699.27	2,329.26	370.01	5,521.92	4,287.35	1,234.57
Riverside	1,196.20	730.00	466.20	1,257.35	683.37	573.98
Wakeeney	3,779.03	3,643.45	135.58	.....	.....	.....
Wilcox	1,268.24	732.74	535.50	2,955.61	1,408.35	1,547.26
Total	$14,548.93	$15,075.79	*$526.86*	$18,820.91	$15,332.86	$3,488.05

COST OF DRAGGING EARTH ROADS.

	Total mileage.	1917.			1918.		
		Number of miles dragged.	Average cost one round trip.	Total cost.	Number of miles dragged.	Average cost one round trip.	Total cost.
County roads	124	30	$1.00	$210.00	60	$0.75	$734.25
Township roads	1,079.5	39	.526	129.50	50	.625	261.87
Grand total	1,203.5	69	$0.763	$339.50	110	$0.688	$996.12
Collver	250	18	$0.50	$54.00	.....	.....	$3.50
Franklin	91	.....	.....	.....	12	$0.55	33.75
Glencoe	55	.....	.....	.....	.....	.....	.....
Ogallah	192	.....	.....	.....	20.5	.625	22.32
Riverside	96	.....	.....	.....	.....	.....	.....
Wakeeney	*276	18	.50	72.00	17.5	.70	202.30
Wilcox	111	3	.58	3.50	.....	.....	.....

* Mileage in 1917.

WABAUNSEE COUNTY.

Commissioners: B. Buchli, J. W. Marrs, and Geo. J. Appleton.

County Funds.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
General county road fund	.....	.....	.....	$24,797.47	$6,491.17	$18,306.30
County motor vehicle license fund	.....	.....	.....	5,942.66	1,586.91	4,355.75
Donations, subscriptions, etc.	.....	.....	.....	.....	.....	.....
Total road funds	.....	.....	.....	$30,740.13	$8,078.08	$22,662.05
Total bridge funds	.....	.....	.....	15,506.91	5,661.05	9,845.86
Grand total	.....	.....	.....	$46,247.04	$13,739.13	$32,507.91

TOWNSHIP ROAD, BRIDGE, DRAG AND POLL-TAX FUNDS.

Townships.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
Alma	.....	.....	.....	$3,615.69	$3,071.09	$544.60
Farmer	.....	.....	.....	.....	.....	.....
Garfield	.....	.....	.....	.....	.....	.....
Kaw	.....	.....	.....	.....	.....	.....
Maplehill	.....	.....	.....	.....	.....	.....
Mill Creek	.....	.....	.....	4,987.55	1,075.36	3,912.19
Mission Creek	.....	.....	.....	.....	.....	.....
Newbury	.....	.....	.....	.....	.....	.....
Plumb	.....	.....	.....	.....	.....	.....
Rock Creek	.....	.....	.....	5,727.12	3,041.77	2,685.35
Wabaunsee	.....	.....	.....	12,118.75	6,054.11	6,064.64
Washington	.....	.....	.....	.....	.....	.....
Wilmington	.....	.....	.....	.....	.....	.....
Total	.....	.....	.....	$26,449.11	$13,242.33	$13,206.78

COST OF DRAGGING EARTH ROADS.

	Total mileage.	1917.			1918.		
		Number of miles dragged.	Average cost one round trip.	Total cost.	Number of miles dragged.	Average cost one round trip.	Total cost.
County roads	164.5	.....	.....	.....	164.5	$0.75	$1,586.91
Township roads	992	.....	.....	.....	124	.75	892.56
Grand total	1,156.5	.....	.....	.....	288.5	$0.75	$2,479.47
Alma	50	.....	.....	.....	25	$0.75	$146.40
Farmer	40	.....	.....	.....	.....	.....	.....
Garfield	55	.....	.....	.....	.....	.....	.....
Kaw	68	.....	.....	.....	.....	.....	.....
Maplehill	85	.....	.....	.....	.....	.....	.....
Mill Creek	52	.....	.....	.....	30	.75	117.86
Mission Creek	135	.....	.....	.....	.....	.....	.....
Newbury	106	.....	.....	.....	.....	.....	.....
Plumb	76	.....	.....	.....	.....	.....	.....
Rock Creek	80	.....	.....	.....	9	.75	31.80
Wabaunsee	101	.....	.....	.....	60	.75	596.50
Washington	69	.....	.....	.....	.....	.....	.....
Wilmington	75	.....	.....	.....	.....	.....	.....

WALLACE COUNTY.

Commissioners: Joseph E. Smith, Guy E. Woodhouse, and J. Aug. Johnson.

County Funds.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
General county road fund				$3,408.56	$2,993.16	$415.40
County motor vehicle license fund				1,338.22		1,338.22
Donations, subscriptions, etc						
Total road funds				$4,746.78	$2,993.16	$1,753.62
Total bridge funds						
Grand total						

TOWNSHIP ROAD, BRIDGE, DRAG AND POLL-TAX FUNDS.

Townships.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
Harrison						
Morton						
North						
Sharon Springs						
Stockholm						
Wallace						
Weskan						
Total						

COST OF DRAGGING EARTH ROADS.

	Total mileage.	1917.			1918.		
		Number of miles dragged.	Average cost one round trip.	Total cost.	Number of miles dragged.	Average cost one round trip.	Total cost.
County roads	63						
Township roads	100						
Grand total	163						
Harrison							
Morton							
North							
Sharon Springs							
Stockholm							
Wallace							
Weskan							

WASHINGTON COUNTY.

Commissioners: A. J. Anderson, J. T. Lewis, and Aug. Kaufmann.

County Funds.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
General county road fund*	$39,946.45	$36,739.61	$3,206.84	$19,970.23	$7,144.48	$12,825.75
County motor vehicle license fund	10,140.17	5,511.47	4,628.70	8,202.85	2,908.54	5,294.31
Donations, subscriptions, etc.	.....	.....	.....	.....	.....	.....
Total road funds	$50,086.62	$42,251.08	$7,835.54	$28,173.08	$10,053.02	$18,120.06
Total bridge funds	.....	.....	.....	.....	.....	.....
Grand total	$50,086 62	$4°,251.08	$7,835.54	$28,173.08	$10,053.02	$18,120.06

* Includes bridges.

TOWNSHIP ROAD, BRIDGE, DRAG AND POLL-TAX FUNDS.

Townships.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
Barnes	.....	.....	.....	.....	.....	.....
Brantford	.....	.....	.....	.....	.....	.....
Charleston	$6,501.48	$6,846.11	*$344.63*	.....	.....	.....
Clifton	.....	.....	.....	.....	.....	.....
Coleman	2,900.94	3,292.72	*391.78*	$3,093.79	$2,442.86	$650.93
Farmington	.....	.....	.....	.....	.....	.....
Franklin	5,453.73	3,956.16	1,497.57	4,829.06	4,426.40	402.66
Grant	.....	.....	.....	.....	.....	.....
Greenleaf	4,782.74	4,000.63	782.11	5,671.87	3,680.16	1,991.71
Haddam	.....	.....	.....	4,673.52	4,278.69	394.83
Hanover	6,645.68	5,327.40	1,318.28	4,955.92	2,747.30	2,208.62
Highland	2,193.35	1,425.75	767.60	.....	.....	.....
Independence	3,031.03	2,596.66	434.37	3,513.79	3,341.07	172.72
Kimeo	3,690.62	3,412.56	278.06	3,025.75	2,043.20	982.55
Lincoln	3,191.59	1,401.47	1,790.12	2,279 00	1,432.48	846.52
Linn	.....	.....	.....	4,800.87	4,566.34	234.53
Little Blue	.....	.....	.....	.....	.....	.....
Logan	3,110.69	3,054.80	55.89	3,154.02	2,652.77	501.25
Lowe	.....	.....	.....	.....	.....	.....
Mill Creek	.....	.....	.....	4,440.90	3,368.44	1,072.46
Sheridan	.....	.....	.....	.....	.....	.....
Sherman	4,680.76	1,205.66	3,475.10	.....	.....	.....
Strawberry	2,777.92	2,217.00	560.92	.....	.....	.....
Union	3,757.62	2,584.71	1,172.91	3,414.78	1,478.07	1,936.71
Washington	.....	.....	.....	2,682.32	777.16	1,905.16
Total	$52,718 15	$41,321.63	$11,396 52	$50,535.59	$37,234.94	$13,300.65

COST OF DRAGGING EARTH ROADS.

	Total mileage.	1917.			1918.		
		Number of miles dragged.	Average cost one round trip.	Total cost.	Number of miles dragged.	Average cost one round trip.	Total cost.
County roads	183	183	$0.50	$2,660.50	183	$0.60	$2,961.54
Township roads	1,883	320	.53	1,864.65	.....	.....	.....
Grand total	2,066	503	$0.515	$4,525.15	.....	.....	.....
Barnes	77	.....	.....	.....	.....	.....	.....
Brantford	74.5	.....	.....	.....	.....	.....	.....
Charleston	68.5	.....	.....	150.10	.....	.....	.....

WASHINGTON COUNTY—CONCLUDED.

	Total mileage.	1917			1918.		
		Number of miles dragged.	Average cost one round trip.	Total cost.	Number of miles dragged.	Average cost one round trip.	Total cost.
Clifton	71						
Coleman	70.5	25	$0.50	$12.50			
Farmington	71						
Franklin	83.5	60	.75	90.00			
Grant	75						
Greenleaf	75	44	.50	286.00			
Haddam	71						
Hanover	72	60	.50	472.80			
Highland	68						
Independence	72.25			205.25			
Kimeo	77		.50	300.00			
Lincoln	86						
Linn	72						
Little Blue	77						
Logan	80	20		80.00			
Lowe	81	22	.50	176.00			
Mill Creek	73.25						
Sheridan	82						
Sherman	77						
Strawberry	76	19	.50	57.00			
Union	73	70	.50	35.00			
Washington	74						

WICHITA COUNTY.

Commissioners: Wm. Rees, J. B. McClintic, and Jas. Oldham.

County Funds.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
General county road fund	.....	.....	.....	$2,057.81	$795.50	$1,262.31
County motor vehicle license fund	.....	.....	.....	1,878.02	676.18	1,201.84
Donations, subscriptions, etc	.....	.....	.....	.....	.....	.....
Total road funds	.....	.....	.....	$3,935.83	$1,471.68	$2,464.15
Total bridge funds	.....	.....	.....	.....	.....	.....
Grand total	.....	.....	.....	.....	.....	.....

TOWNSHIP ROAD, BRIDGE, DRAG AND POLL-TAX FUNDS.

Townships.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
Edwards	.....	.....	$21.64	$1,018.64	$953.57	$65.07
Leoti	.....	.....	485.65	845.17	115.20	729.97
White Woman	.....	.....	250.00	445.00	27.83	417.17
Total	.....	.....	$757.29	$2,308.81	$1,096.60	$1,212.21

COST OF DRAGGING EARTH ROADS.

	Total mileage.	1917.			1918.		
		Number of miles dragged.	Average cost one round trip.	Total cost.	Number of miles dragged.	Average cost one round trip.	Total cost.
County roads	58	42	$0.75	$153.55	52	$0.75	$301.15
Township roads	555	.....	.....	.....	.....	.....	.....
Grand total	608	.....	.....	.....	.....	.....	.....
Edwards	.....	.....	.....	.....	.....	.....	.....
Leoti	.....	.....	.....	.....	.....	.....	.....
White Woman	.....	.....	.....	.....	.....	.....	.....

WILSON COUNTY.

Commissioners: J. E. Clark, A. J. Ormdorff, and W. L. Hudson.

County Funds.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
General county road fund	$33,929.01	$31,650.71	$2,278.30	$41,662.23	$36,310.80	$5,351.43
County motor vehicle license fund	.....	.....	.....	817.75	.....	817.75
Donations, subscriptions, etc	.....	.....	.....	.....	.....	.....
Total road funds	$33,929.01	$31,650.71	$2,278.30	$42,479.98	$36,310.80	$6,169.18
Total bridge funds	21,119.99	4,033.71	17,086.28	17,388.75	2,229.41	15,159.34
Grand total	$55,049.00	$35,684.42	$19,364.58	$59,868.73	$38,540.21	$21,328.52

TOWNSHIP ROAD, BRIDGE, DRAG AND POLL-TAX FUNDS.

Townships.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
Cedar	$7,521.89	$6,570.85	$951.04	$6,227.60	$4,552.44	$1,675.16
Center	5,348.81	5,123.62	225.19	2,346.70	2,142.72	203.98
Chetopa	4,561.17	776.93	3,784.24	2,920.94	2,146.02	774.92
Clifton	4,322.49	2,059.19	2,263.30	3,683.39	2,682.38	1,001.01
Colfax	5,244.69	5,236.45	8.24	5,531.94	3,998.73	1,533.21
Duck Creek	3,740.27	1,760.06	1,980.21	2,712.86	2,475.12	237.74
Fall River	5,776.21	5,504.55	271.66	4,176.72	4,179.13	2.41
Guilford	3,769.25	1,566.48	2,202.77	2,265.08	1,892.11	372.97
Neodesha	14,289.38	11,407.47	2,881.91	4,806.09	3,686.85	1,119.24
Newark	3,017.06	3,017.06	.....	2,690.50	2,461.41	229.09
Pleasant Valley	4,781.48	2,972.84	1,808.64	4,540.28	3,307.17	1,233.11
Prairie	2,297.87	1,489.58	808.29	1,292.55	958.09	334.46
Tallevrand	2,522.96	1,974.85	548.11	1,693.33	1,549.61	143.72
Verdigris	3,437.79	1,636.48	1,801.31	1,751.49	1,381.83	369.66
Webster	2,470.49	1,482.52	987.97	2,036.63	1,854.31	182.32
Total	$73,101.81	$52,578.93	$20,522.88	$48,676.10	$39,267.92	$9,408.18

COST OF DRAGGING EARTH ROADS.

	Total mileage.	1917.			1918.		
		Number of miles dragged.	Average cost one round trip.	Total cost.	Number of miles dragged.	Average cost one round trip.	Total cost.
County roads	160	157	**$0.68	$2,769.60	159	$0.75	$4,905.90
Township roads	900	.....	.60	2,925.77	.....	.....	394.60
Grand total	1,060	.....	$0.64	$5,695.37	.....	.....	$5,300.50
Cedar	*46	.....	$0.60	$745.95	.....	.....	.....
Center	*66	.....	.60	350.25	.....	.....	$394.60
Chetopa	*66	.....	.60	27.20	.....	.....	.....
Clifton	*64	.....	.60	211.27	.....	.....	.....
Colfax	*95	.....	.60	465.84	.....	.....	.....
Duck Creek	*62	.....	.60	113.30	.....	.....	.....
Fall River	*89	.....	.60	54.80	.....	.....	.....
Guilford	*51	.....	.60	295.25	.....	.....	.....
Neodesha	*60	.....	.60	243.94	.....	.....	.....
Newark	*58	.....	.60	99.25	.....	.....	.....
Pleasant Valley	*90	.....	.60	164.10	.....	.....	.....
Prairie	*54	.....	.60	4.75	.....	.....	.....
Tallevrand	*47	.....	.60	105.45	.....	.....	.....
Verdigris	*75	.....	.60	58.93	.....	.....	.....
Webster	*40	.....	.60	75.49	.....	.....	.....

* Mileage in 1917.
** Average two or more systems of dragging.

STATE
ALA.
ARIZ.
ARK.
CAL.
COLO.
CONN.
DEL.
FLA.
GA.
IDAHO
ILL.
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IOWA
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N. H.
N. J.
N.MEX
N.Y.
N.C.
N.DA
OHIO
OKLA
OREG
PA.
R.I.
S.C.
S.DA
TENN
TEX.
UTAH
VT.
VA.
WAS
W.VA
WIS.
WYO

WOODSON COUNTY.

Commissioners: Geo. H. Lynn, H. M. Coe, and J. W. Pool.

County Funds.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance
General county road fund	.....	.....	.....	.....	.....	.....
County motor vehicle license fund	.....	.....	.....	.....	.....	.....
Donations, subscriptions,						
Total road funds	.....	.....	.....	.....	.....	.....
Total road funds	.....	.....	.....	.....	.....	.....
Total bridge funds	.....	.....	.....	.....	.....	.....
Grand total	.....	.....	.....	.....	.....	.....

TOWNSHIP ROAD, BRIDGE, DRAG AND POLL-TAX FUNDS.

Townships.	1917.			1918.		
	Total receipts.	Total expenditures	Balance.	Total receipts.	Total expenditures.	Balance.
Belmont	.....	.....	.....	.....	.....	.....
Center	.....	.....	.....	.....	.....	.....
Eminence	.....	.....	.....	.....	.....	.....
Everett	.....	.....	.....	.....	.....	.....
Liberty	.....	.....	.....	.....	.....	.....
Neosho Falls	.....	.....	.....	.....	.....	.....
North	.....	.....	.....	.....	.....	.....
Owl Creek	.....	.....	.....	.....	.....	.....
Perry	.....	.....	.....	.....	.....	.....
Toronto	.....	.....	.....	.....	.....	.....
Total	.....	.....	.....	.....	.....	.....

COST OF DRAGGING EARTH ROADS.

	Total mileage.	1917.			1918.		
		Number of miles dragged.	Average cost one round trip.	Total cost.	Number of miles dragged.	Average cost one round trip.	Total cost.
County roads	102	.....	.....	.....	.....	.....	.....
Township roads	902	.....	.....	.....	.....	.....	.....
Grand total	1,004	.....	.....	.....	.....	.....	.....
Belmont	.....	.....	.....	.....	.....	.....	.....
Center	.....	.....	.....	.....	.....	.....	.....
Eminence	.....	.....	.....	.....	.....	.....	.....
Everett	.....	.....	.....	.....	.....	.....	.....
Liberty	.....	.....	.....	.....	.....	.....	.....
Neosho Falls	.....	.....	.....	.....	.....	.....	.....
North	.....	.....	.....	.....	.....	.....	.....
Owl Creek	.....	.....	.....	.....	.....	.....	.....
Perry	.....	.....	.....	.....	.....	.....	.....
Toronto	.....	.....	.....	.....	.....	.....	.....

WYANDOTTE COUNTY.

Commissioners: Wm. Blodgett, Samuel Clark, and D. T. Buckland.

County Funds.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
General county road fund	.....	.....	.....	$148,244.45	$71,802.21	$76,442.24
County motor vehicle license fund	.....	.....	.....	28,602.66	28,413.66	189.00
Donations, subscriptions, etc	.....	.....	.....	.....	.....	.....
Total road funds	.....	.....	.....	$176,847.11	$100,215.87	$76 631.24
Total bridge funds	.....	.....	.....	.....	.....	.....
Grand total	.....	.....	.....	.....	.....	.....

TOWNSHIP ROAD, BRIDGE, DRAG AND POLL-TAX FUNDS.

Townships.	1917.			1918.		
	Total receipts.	Total expenditures.	Balance.	Total receipts.	Total expenditures.	Balance.
Delaware	.....	.....	.....	$7,160.00	$7,160.00	.....
Prairie	.....	.....	.....	$6,697.86	$2,260.41	$4,437.45
Quindaro	.....	.....	.....	10,123.82	4,043.21	6,080.61
Shawnee	.....	.....	.....	19,590.01	17,925.46	1,664.55
Wyandotte	.....	.....	.....	13,834.13	12,862.37	971.76
Total	.....	.....	.....	$57,405.82	$44,251.45	$13,154.37

COST OF DRAGGING EARTH ROADS.

	Total mileage.	1917.			1918.		
		Number of miles dragged.	Average cost one round trip.	Total cost.	Number of miles dragged.	Average cost one round trip.	Total cost.
County roads	83	.....	.....	.....	.....	.....	.....
Township roads	247	.....	.....	.....	186	$1.10	$2,788.57
Grand total	330	.....	.....	.....	.....	.....	.....
Delaware	.....	.....	.....	.....	60	.75	$450.00
Prairie	60	.....	.....	.....	.....	.375	348.37
Quindaro	.....	.....	.....	.....	48	1.00	48.20
Shawnee	.....	.....	.....	.....	38	1.80	342.00
Wyandotte	47	.....	.....	.....	40	1.60	$1,600.0

GENERAL STATISTICS.

Pages 228 to 267, Inclusive.

TABLE No. 1.—SOME INTERESTING COMPARISONS OF KANSAS COUNTIES,

THEIR ROAD MILEAGES AND THE HIGHWAY FUNDS AVAILABLE FOR THE YEAR ENDING OCTOBER 8, 1918.

Counties.	Total miles of road.	Number of miles of county road.	Per-cent of total.	Assessed value of county per mile of county road.	County road levy, 1917, mills.	County road fund, 1917.	County bridge levy, 1917, mills.	County bridge fund, 1917.	Total county road and bridge fund, 1917.	Amount county road and bridge fund per mile of county road.	Township road and bridge fund, 1917.	General township fund.	Area of county, square miles.	County population, 1916.	Tax roll.
Allen	800	104	13 0	$302,016	0 70	$21,931.47	0.20	$6,266.14	$28,268 72	$271.81	$52,320.43	$15,155.59	504	25,825	$31,409,690
Anderson	1,125	136	12.1	188,734	0.60	15,398.72	0.61	15,655.37	31,058.09	228.36	35,302.75	9,093.27	576	12,790	25,667,883
Atchison	928	143	15.4	295,6 6	0.60	.....	.....	.....	91,946.20	663.96	36,197.75	18,791 75	423	27,371	42,271,598
Barber	900	130	14 5	166,918	0.30	6,594.64	0.50	10,841.07	17,359 44	133.54	35,705.33	10,490.96	1,134	10,212	21,699,298
Barton	1,683	200	11 9	213,9 0	0.25	10,612.77	0.25	10,612.77	21,[illegible]90.00	1.6 95	18,221.36	16,336.09	900	18,377	42,780,000
Bourbon	1,232	155	11 6	196,954	1.00	30,623.85	0.75	22,967.89	53,423.64	344.66	37,047.10	9,795.16	637	25,077	30,527,794
Brown	1,150	170	14.8	267,[illegible]16	0.50	22,691 06	1.00	45,382.12	68,154.61	400.91	61,293.89	12,197.78	576	20,374	45,443,712
Butler	2,377	250	10.5	267,601	0 25	16,720.68	0.75	50,162.04	67,093.42	268.29	82,896 87	25,176.03	1,428	24,724	66,900,157
Chase	1,100	127	11.5	165,404	0.50	10,503.17	0 93	20,586.21	31,089 23	244.88	22,336.33	9,356.41	750	6,912	21,006,340
Chautauqua	1,065	151	14 2	116,196	0.50	8,493 12	0.25	4,246 56	13,159 24	87.15	30,237.02	9,922.34	651	11,175	17,545,645
Cherokee	1,178	155	13.6	180,451	1.50	41,929.34	1 00	27,952.89	69,924 85	451.13	52,589.42	.....	589	35,937	27,969,942
Cheyenne	600	96	16 0	89,611	0.50	4,301 35	0.20	1,720.54	6,021 92	62.73	13,491.07	3,928.00	1,020	4,4 0	8,602,699
Clark	658	73	11 1	191,974	0.50	6,951.74	.....	.....	7,007.27	95.99	11,341.72	5,747.36	975	4,776	14,014,096
Clay	1,337	180	13.5	178,631	0.40	12,781.49	0.40	12,781.49	25,722.89	142.90	36,687.16	17,355.50	660	15,222	32,153,639
Cloud	1,360	199	14 6	188,637	1 00	37,538 66	1.00	37,538 66	75,080.41	377 29	36,066 46	13,205.69	720	19,512	37,538,664
Coffey	1,296	163	12 6	144,954	0.37	8,860 33	0.97	23,036.86	31,879.81	195 58	40,140 66	11,961.25	648	15,035	23,627,552
Comanche	637	81	12.7	148,284	0 30	3,603.35	.....	.....	3,603.35	44.49	20,751 62	6,485.58	795	5,426	12,011,000
Cowley	1,925	193	10 0	278,279	0.50	26,726 54	1.00	53, 53 07	80,539.72	417.30	42,796 67	18,060.50	1,112	31,015	53,707,937
Crawford	1,150	140	12 1	328,339	1.10	50,481.74	0 53	24,323.02	74,936 85	535 19	57,642 96	21 637.39	592	61,736	45,967,470
Decatur	1,605	166	10.3	76,538	0.40	5,082.13	0.40	5,082 13	10,163.96	61.23	24,166 21	5,234.81	900	8,067	12,705,316
Dickinson	1,656	178	10.7	268,628	0.25	11,896 38	0.63	30,121 64	42,213.00	237.18	62,849 93	10,540.77	851	25,705	47,812,277
Doniphan	.....	100	.....	273,021	1.00	27,280 52	1 00	27,280 52	61,309 28	613.09	50,886 91	17,417.48	379	17,191	27,303,133
Douglas	1,000	136	13 6	279,134	0 35	13,336 80	0.75	28,578.85	41,745.20	300.95	28,035.05	14,427.77	469	25,101	37,962,215
Edwards	878	.....	.....	.....	0.20	3,625 04	.....	.....	3,625.04	.....	8,363 67	10,458 58	612	6,773	18,152,954
Elk	1,000	126	12 6	128,806	0.70	11,402 54	0.42	6,841.52	18,177 67	144.27	28,402.51	11,092.14	651	10,027	16,229,598
Ellis	1,114	125	11.0	174,149	0.35	7,619 02	1.00	21,768 62	29,387 68	235 10	18,021.64	3,051.72	900	13,745	21,763,620
Ellsworth	942	127	13.5	221,969	0.50	14,062.63	1.00	28,125 26	42,241 38	332.61	30,284.38	17,193.59	720	10,544	28,182,476
Finney	875	147	16 7	98,513	1.00	14,480 32	0.75	10,860.24	25,342.44	172.40	5,066 32	3,218 87	1,296	6,716	14,481,450
Ford	1,507	188	12 5	142,570	0 60	16,081.88	0 20	5,360 62	21,443 00	114 06	21,621.20	9,245.53	1,080	13,673	26,803,127
Franklin	1,152	177	15 3	202,214	0.35	12,527 16	0.63	22,190 97	34,718 12	196 15	.....	52,728.30	576	22,422	36,791 880
Geary	500	117	23 4	157,759	1.50	27,686 79	1.00	18,457.86	46,129 44	394 27	14,422.47	6,535 59	407	10,108	18,457,859
Gove	500	148	29 6	67,687	0.30	3,008.45	.....	.....	3,008.32	20.31	6,617 55	2,645 75	1,080	4,537	10,017,722
Graham	1,309	139	10.6	99,660	0.40	5,541 10	0.30	4,155.83	9,696 53	69.76	20,353.00	8,126 90	900	7,736	13,852,750
Grant	.....	51	.....	51,285	0.25	653.89	.....	.....	653.88	12.82	.....	480.32	576	997	2,615,553

Gray	944	124	13.1	83,066	0.35	3,581.64	0.30	3,069.98	6,697.03	54.01	5,962.56	4,010.13	864	4,386	10,300,206
Greeley	225	62	27.6	66,897	0.40	1,659 05	.....	.....	1,659.05	26.76	1,432 81	2,298.79	780	1,060	4,147,617
Greenwood	1,845	176	9.6	188,694	1.00	33,210.11	0.60	19,926.06	53,136.00	301.91	51,873.54	22,160.53	1,155	15,004	33,210,105
Hamilton	125	63	50.0	94,473	0.60	3,571.10	.....	.....	3,571.10	56 68	3,070.53	4,300.00	972	2.444	5,951,829
Harper	1,458	180	12.3	174,412	1.00	31,394.22	1.00	31,394.22	62,788 51	348 83	15.709 59	13,197.94	810	13,257	31,394,224
Harvey	1,128	146	12 9	266,965	0.45	17,539.57	0.50	19,488.41	37,027.98	253.62	20,808.31	13,813.55	540	18,543	38,976,826
Haskell	500	68	13.6	58,515	1.00	3,979.03	.....	.....	3,979 00	58.51	2,348.00	856 00	576	1,336	3,979,030
Hodgeman	500	89.5	17.9	109.987	0.50	4,921.93	1.00	9,843.86	14,761.64	164.93	11,102.49	7,110.88	864	3,585	9,843,860
Jackson	1,196	175	14.6	176,379	0.25	7,714.82	0.75	23,144.47	30,861.32	176.35	48,365.12	17,761.84	658	15,132	30,866,250
Jefferson	1,100	132	12.0	241,632	0.30	9,567.48	0.60	19,134.95	28,705.54	217.47	26,787.01	23,101.98	563	15,156	31,835,314
Jewell	1,811	245	13.5	170,157	0.25	10,422.10	0.90	37,519.56	47,941.66	195.68	42,547.97	21,869.25	900	16,548	41,648,397
Johnson	1,015	97	9.5	427,333	1.50	62,124.38	0.50	20,708.12	82,902.67	854.67	78,351.49	14,820 63	480	18,276	41,451,330
Kearny	495	67	13 5	90,149	0.50	3,020.01	0.50	3,020 01	12,557.19	187.42	4,339.04	517.66	864	2,431	6,040,010
Kingman	1,612	207	12.8	151,427	1.00	31,328.98	1.20	37,594.73	62,690.68	302.85	26,992.82	11,691.56	864	13,075	31,345,341
Kiowa	739	59	8.0	206,086	0.40	6,825.66	.....	.....	6,820.42	115.60	9,030 44	13,136.58	720	6.514	17,051,057
Labette	1,390	188	13.5	202,525	1.50	57,112.10	1.00	38,074.74	95,186 04	506.31	27,163.11	17,460 27	619	34,055	38,074,735
Lane	263	112	44.3	70,398	0 50	3,944.74	0 25	1,972.37	5,913.39	52.80	2,177.10	1,420 61	720	2,476	7,894,530
Leavenworth	885	136	15.4	323,566	0.30	13,199.06	0 80	35,197.49	48,397.63	355.86	32,442 74	17,440.66	455	40,830	43,996,862
Lincoln	.....	177	.....	143,413	0.27	6,853.72	0.20	5,076.83	11,930.56	67.40	11,663.94	11,937.18	720	10,880	25,384,145
Linn	920	146	15.8	141,678	0 50	10,346 50	0.50	10,346 50	20,694 74	141.68	25,007.50	17,325.84	637	15,255	20,634,928
Logan	420	106	25.2	79,644	0.25	2,110.58	0.30	2,532.70	4,643.28	43.80	6,125.87	3,171.66	1,030	3,316	8,442,234
Lyon	1,760	220	12.5	195,505	0.61	26,238.81	0 75	32,260.84	58,395 09	265 89	52,702.18	5,644 61	858	25,011	43,011,120
Marion	1,761	180	10.2	245,535	0.50	22,098 19	1.00	44,196 39	66,288.06	414.30	45,226.86	15,034.32	954	21,934	44,196,386
Marshall	1,685	173	10.2	308,569	1.00	53,382.52	1.00	53,382.52	106,762.74	617.13	80,438.40	12,253.80	930	21,991	53,382,519
McPherson	1,653	171	10.3	284,412	0.25	12,158 61	0.40	19,453.77	31,612.38	184.87	43,619.62	14,030.34	900	21.796	48,634,431
Meade	870	137	15.7	88,239	0.30	3,626 63	0 40	4,835.50	8,461.93	61 77	16,960.00	5,581.41	975	6,053	12,088,762
Miami	1,204	175	14.5	194,804	0.75	25,568.01	0.75	25,568.01	51,136.00	292 21	49,840.00	2,900.79	588	18,402	34,090,630
Mitchell	1,407	215	15.3	154,136	0 50	16,569.63	0 90	29,825.33	46,394.89	215.79	23,918 31	17,084.85	720	14,496	33,139,256
Montgomery	1,200	144	12.0	476,729	1.00	68,648.99	0.80	54,919.19	123,568.18	858.11	66,903 65	21,165 21	648	48,302	63,648,989
Morris	1,200	180	15.0	129,541	0.75	17,789.90	1.00	23,719 87	41,505.52	230.59	33,510.51	11,539.92	700	11,852	23,717,444
Morton	150	67	44.6	60,474	0.50	2,023 77	.....	.....	2,025.86	30.24	3,000.94	.....	729	2,229	4,051,734
Nemaha	1,455	154.5	10.6	281,844	0.25	10,886 21	0.80	34,835.86	45,715.44	295.89	73,503 46	21,603.59	720	18,894	43,544,827
Neosho	1,160	150	12.9	229,223	0.50	17,191.73	0 52	17,879.40	35,071.13	233.81	40,986.33	9,281.81	576	23,272	34,383,455
Ness	947	118	12.4	121,212	0.25	3,575.74	0 20	2,860 60	6,436 33	54.55	10,901.49	6,242 97	1,080	6,610	14,302,992
Norton	1,531	206	13.4	93,276	0.55	10,568.31	1.00	19,214.12	29,783.19	144.58	37,461 61	10,508 17	900	11,886	19,214,922
Osage	1,368	198	14.4	165,989	1.00	32,865.90	0.50	16,432.95	49,298.77	248 98	48,796 87	22,349.87	720	20,196	32,865,896
Osborne	1,538	160	10.4	182,528	0.30	8,761.33	0.70	20,443.10	29,204.42	182.53	31,033.81	11,032 17	900	13,714	29,204,429
Ottawa	1,304	196	15.0	148,529	1.40	.....	.....	.....	40,755.10	207.93	17,363.95	14,305.30	720	11,416	29,111,658
Pawnee	1,424	144	10.1	194,471	0.25	7,000.95	0.55	15,402.09	22,403.05	155.58	9,820.30	29,095.56	756	9,492	28,003,797
Phillips	1,823	203	11.1	123,053	0.50	12,490.12	1 00	24,980 23	37,469.48	184.57	43,995 65	16,166 21	900	13,025	24,979,683
Pottawatomie	1,600	200	12.5	169,953	1.25	42,499.51	1.00	33,999 61	97,348.63	486.74	54,905.77	20,856 11	848	16,235	33,999,638
Pratt	1,000	133	13.3	218,383	0.50	14,474.21	0.15	4,342.26	18,879 19	141.95	19,456 57	10,974.13	720	12,009	29,044,901
Rawlins	270	82	30.3	121,541	0.50	4,983.17	.....	.....	4,983.17	60.77	15,876.39	6,400 31	1,080	6,255	9,966,331
Reno	2,404	334	13.9	246,215	0.96	79,584.81	0.80	66,320 68	145,907 14	436.85	28,564.05	27,903 46	1,260	42.458	82,901,807
Republic	1,400	187	13.3	227,414	0.25	10,631 62	0.20	8,505.30	19,137 04	102.34	32,973 01	15,538 20	720	17,066	42,526,475
Rice	1,350	170	12.6	219,321	0.50	18,645 10	1.00	37,290.20	55,926 85	328.98	23,771 30	9,041 07	720	14,571	37,284,567
Riley	1,100	130	11.8	226,378	0.34	10,442.85	1.00	30,714.27	41,136.83	316.49	2 ,006 02	14,196 46	617	16,387	30,729,105
Rooks	1,608	188	11.7	114,585	0 60	.....	.....	.....	12,925.11	68.75	15,352.64	10,315 44	900	11,010	21,541,916
Rush	1,358	178	13.1	109,511	0.30	5,845.96	.....	.....	5,847.92	32.85	7,997.98	7,095 97	720	8,334	19,493,979
Russell	1,350	163	12.1	182,414	0.60	16,640.10	0.60	16,640.10	33,295.02	204.26	27,982.42	5,775.00	900	11,455	29,733,500

TABLE No. 1.—CONCLUDED.

Counties.	Total miles of road.	Number of miles of county road.	Per-cent of total.	Assessed value of county per mile of county road.	County road levy, 1917, mills.	County road fund, 1917.	County bridge levy, 1917, mills.	County bridge fund, 1917.	Total county road and bridge fund, 1917.	Amount county road and bridge fund per mile of county road.	Township road and bridge fund, 1917.	General township fund.	Area of county, square miles.	County population, 1916.	Tax roll.
Saline	1,525	150	9.8	350,330	0.50	$26,274.53	0.50	$26,274.53	$52,549.06	350.33	$26,572.70	$22,240.75	720	22,045	$52,549,055
Scott	290	78.5	27.0	85,284	0.27	1,843.33	.....	.....	1,853.12	23.61	2,743.39	1,523.89	720	2,667	6,737,214
Sedgwick	2,390	.....	.....	.....	0.25	30,952.53	0.28	34,666.83	65,593.33	.....	66,182.11	17,565.42	1,008	72,634	123,819,218
Seward	296	76	25.7	119,254	1.05	9,516.46	.....	.....	9,516.46	125.21	6,964.57	1,210.68	648	5,053	9,063,299
Shawnee	1,096	.....	.....	.....	1.10	106,495.46	0.80	77,451.24	243,303.60	.....	63,967.47	9,883.10	558	64,842	94,403,560
Sheridan	1,400	140	10.0	80,769	0.25	2,830.17	0.50	5,660.35	8,480.73	57.66	6,721.96	6,614.15	900	5,370	11,307,650
Sherman	180	63	35.0	152,708	0.50	.....	.....	.....	4,810.30	76.35	4,417.75	2,790.72	1,080	4,432	9,620,577
Smith	1,820	181	10.0	181,336	0.25	8,206.38	1.00	32,825.52	41,029.22	226.68	36,848.58	14,813.33	900	15,672	32,821,741
Stafford	1,500	188	12.5	147,124	None	None	None	None	None	.....	19,415.42	13,121.65	792	11,396	27,659,265
Stanton	303	54.5	18.0	45,627	0.30	746.00	None	None	746.00	13.69	.....	248.66	672	881	2,486,695
Stevens	230	89	38.7	64,560	None	None	None	None	None	.....	784.70	784.70	729	2,757	5,745,816
Sumner	1,925	.....	.....	.....	0.30	1,703.78	0.40	22,717.08	39,755.60	.....	51,856.04	21,023.21	1,1 8	28,752	56,792,724
Thomas	.....	131	.....	100,909	None	None	None	None	None	.....	5,795.60	6,559.17	1,080	4,584	13,219,111
Trego	1,200	124	10.3	89,629	0.50	5,567.52	1.00	11,135.05	16,708.43	134.75	22,708.91	7,920.30	900	5,620	11,137,962
Wabaunsee	1,500	.....	.....	.....	0.82	21,089.58	0.60	15,431.40	36,521.79	.....	44,213.01	17,185.16	804	12,031	25,718,998
Wallace	163	63	38.6	91,822	0.50	2,892.38	None	None	2,892.38	45.91	1,398.28	3,773.00	900	2,253	5,784,760
Washington	1,800	189	10.5	230,738	0.26	11,338.68	1.00	43,610.30	54,947.88	297.73	73,867.70	24,419.97	900	19,002	43,609,438
Wichita	608	58	9.5	69,354	None	None	None	None	None	.....	542.77	.....	720	1,593	4,022,536
Wilson	1,060	160	15.0	217,906	1.00	34,864.95	0.50	17,432.48	52,297.42	326.86	42,595.57	15,897.32	576	21,198	34,864,950
Woodson	1,004	.....	.....	.....	1.00	15,043.93	.....	.....	15,044.07	.....	21,856.48	8,668.84	504	9,313	15,043,928
Wyandotte	330	83	25.1	1,442,796	1.00	119,751.58	0.25	29,937.90	149,168.82	1,797.21	47,921.24	13,471.75	153	113,130	119,752,030
Total	.....	.....	.....	.....	.....	$1,789,670.39	.....	$1,849,567.63	$3,896,374.25	.....	$3,323,858.73	$1,229,540.79	.....	.....	.....

In the comparative table given above there is a slight discrepancy between the total county road and bridge funds and the summation of the separate amounts. This is due to the fact that the combined county road and bridge funds were taken direct from the reports filed by the county clerks with the State Tax Commission, and they were figured from the tax roll, while the separate county road and bridge funds were computed from the levies and assessed value of the counties before the assessed values had been finally corrected.

On June 17 there was a total of 184,885 automobiles and 6,331 motorcycles registered in the state. At $4.50 for each automobile and $2 for each motorcycle, this gives a total of $844,644.50 in the automobile highway fund. To this amount must be added the fees that will be collected between June 17 and July 1, and also the amount to be redistributed by the secretary of state to the several counties. It is probable that the total automobile fees in the highway fund for 1918 will amount to $900,000.

It is a conservative estimate that the township poll tax of the state will amount to $500,000.

The general township fund amounts to $1,229,540.79, and not less than half this amount, or $615,000, will be used in connection with township highway work.

The estimated county and township road and bridge funds available in Kansas for the year ending October 8, 1918, not including any money provided by road benefit districts, is as follows:

Total county road and bridge fund	$3,896,374.25
Total township road and bridge fund	3,323,858.73
Estimated total automobile fees	900,000.00
One-half of township general fund	615,000.00
Estimated amount of township poll tax	500,000.00
Total	$9,235,232.98

The average amount of county road funds available per mile of county road is $128.37. This does not include any automobile fees or any part of the county bridge funds.

TABLE No. 2.—BIDS RECEIVED JUNE 26, 1918, FEDERAL AID PROJECT No. 12, GEARY COUNTY.

NAME OF BIDDER		Ritchie Bros., Topeka, Kan.		M. R. Amerman, Salina, Kan.		Jas. Stanton, Leavenworth, Kan.		Universal Con't Co., St. Joseph, Mo.		Engineer's Estimate.	
ITEMS— Sections "A" and "D."	Estimated quantities.	Unit prices.	Extensions.	Unit prices.	Extensions.	Unit prices.	Extensions.	Unit prices.	Extensions.	Unit prices.	Extensions.
Excavation in earth	4,276 cu. yds	$0.90	$3,848.40	$0.80	$3,420.80	$0.82	$3,506.32	$0.55	$2,351.80	$0.54	$2,309.04
Borrow in earth	1,555 cu. yds	.90	1,399.50	.85	1,321.75	.85	1,321.75	.60	933.00	.54	839.70
Culvert, concrete, Class "A"	9.48 cu. yds	50.00	474.00	45.00	426.60	50.00	474.00	16.00	151.63	13.24+	125.56
Culvert, concrete, Class "C"	17.39 cu. yds	50.00	869.50	40.00	695.60	45.00	782.55	16.00	278.24	14.63+	254.59
Culvert, reinforcing steel	930 lbs	.11	102.30	.12	111.60	.15	139.50	.08	74.40	.0625	58.12
Earth shoulders	6,559 sq. yds	.12	787.08	.10	655.90	.20	1,311.80	.15	983.85	0.042	275.48
Reinforced concrete pavement	13,118.2 sq. yds	2.47	32,401.95	2.37	31,090.13	2.85	37,386.87	1.59	20,857.94	1.321+	17,332.02
15 inch reinforced concrete pipe in place	67.33 lin. ft	2.90	195.26	3.00	201.99	3.50	235.65	2.50	168.32	2.74	184.48
18 inch reinforced concrete pipe in place	15.33 lin. ft.	3.80	58.25	3.50	53.66	4.50	68.99	3.00	45.99	3.49	53.50
Guard fence	428 lin. ft	1.25	535.00	1.00	428.00	1.00	428.00	.50	214.00	0.50+	214.50
Joints for concrete pavement	3,540 lin. ft	.15	531.00	.12	424.80	.15	531.00	.06	212.40	*	*
Total			$41,202.24		$38,830.83		$46,186.43		$26,271.62		
ITEMS—Sections "B" and "D."											
Excavation in earth	4,276 cu. yds	$0.90	$3,848.40	$0.80	$3,420.80	$0.82	$3,506.32			$0.54	$2,309.04
Borrow in earth	1,555 cu. yds	.90	1,399.50	.85	1,321.75	.85	1,321.75			0.54	839.70
Culvert, concrete, Class "A"	9.48 cu. yds	50.00	474.00	45.00	426.60	50.00	474.00			13.24+	125.56
Culvert, concrete, Class "C"	17.39 cu. yds	50.00	869.50	40.00	695.60	45.00	782.55			14.63+	254.59
Culvert, reinforcing steel	930 lbs	.11	102.30	.12	111.60	.15	139.50			.0625	58.12
Earth shoulders	6,559 sq. yds	.12	787.08	.10	655.90	.20	1,311.80			0.042	275.48
Reinforced concrete pavement	475.6 sq. yds	2.47	1,174.73	2.37	1,127.17	2.85	1,355.46			1.607+	764.40
Brick, pavement monolithic type	12,642.6 sq. yds	2.95	37,295.67	2.91	36,789.97	3.02	38,180.65			2.338+	29,558.89
15 inch reinforced concrete pipe in place	67.33 lin. ft	2.90	195.26	3.00	201.99	3.50	235.65			2.74	184.48
18 inch reinforced concrete pipe in place	15.33 lin. ft	2.80	42.92	3.50	53.66	4.50	68.99			3.49	53.50
Guard rail	428 lin. ft	1.25	535.00	1.00	428.00	1.00	428.00			0.50+	214.50
Joints for concrete pavement	140 lin. ft	.15	21.00	.12	16.80	.15	21.00			*	*
Total			$46,745.26		$45,249.84		$47,825.67				

* Estimate of joints included in pavement estimate.

TABLE No. 3.—BIDS RECEIVED JULY 24, 1918.

NAME OF BIDDER ☞		Jas. Stanton, Leavenworth, Kan.		*A. Wagner, Junction City, Kan.		McCoy & Taylor, Wichita, Kan.		J. K. Shinn, Independence, Kan.	
ITEMS— Sections "A" and "D."	Estimated quantities.	Unit prices.	Extensions.	Unit prices.	Extensions.	Unit prices.	Extensions.	Unit prices.	Extensions.
Excavation in macadam	683 cu. yds.			$2.00	$1,366.00				
Earth shoulders	6,559 sq. yds.			.25	1,639.75				
Reinforced concrete pavement	13,118.2 sq. yds.			†1.47½	19,349.34				
Joints for concrete pavement	3,540 lin. ft.			.08	283.20				
Shaping and rolling subgrade	13,118.2 sq. yds.			.25	3,279.55				
Total					$25,917.84				
Sections "B" and "D."									
Excavation in macadam	683 cu. yds.	$0.85	$580.55			$0.90	$614.70	$1.00	$683.00
Earth shoulders	6,559 sq. yds.	.065	426.35			.07	459.13	.06	393.54
Reinforced concrete pavement	475.6 sq. yds.	2.30	1,093.88			2.35	1,117.66	2.37	1,127.17
Brick pavement, monolithic type	12,612.6 sq. yds.	3.10	39,192.06			3.20	40,356.32	3.10	39,192.06
Joints for concrete pavement	140 lin. ft.	.19	26.60			.15	21.00	.20	28.00
Shaping and rolling subgrade	13,118.2 sq. yds.	.14	1,836.55			.20	2,623.64	.12	1,574.18
Totals			$43,155.99				$45,292.45		$42,997.95
ITEMS—Grading.									
Excavation in earth	3,593 cu. yds.	$0.90	$3,233.70	$0.40	$1,437.20	$0.70	$2,515.10	$0.65	$2,335.45
Borrow in earth	1,354 cu. yds.	.90	1,218.60	.40	541.60	.70	947.80	.65	880.10
Clearing and grubbing	20 trees	8.50	170.00	1.50	30.00	15.00	300.00	10.00	200.00
Total			$4,622.30	‡	$2,008.80		$3,762.90		$3,415.55
ITEMS—Culverts	6 culverts		$1,225.00	†	$790.00		$1,200.00		$1,350.00

* This bid was irregular. Contained a separate lump sum price for paving reinforcement and specified that cement be furnished by the county.
† This price was specified as exclusive of cost of cement and reinforcement.
‡ These bids specified that they were not to be considered unless pavement contract was awarded to this bidder.

TABLE No. 3—CONCLUDED.

NAME OF BIDDER		M. R. AMERMAN, Salina, Kan.		T. O. BROTT, Junction City, Kan.		MALLEY & KELLEY, Kansas City, Mo.		ENGINEER'S ESTIMATE.	
ITEMS — Sections "A" and "D."	Estimated quantities.	Unit prices.	Extensions.	Unit prices.	Extensions.	Unit prices.	Extensions.	Unit prices.	Extensions.
Excavation in macadam	683 cu. yds.	$1.00	$683 00					$0 75	$512.25
Earth shoulders	6,559 sq. yds.	.05	327.95					.05	327 95
Reinforced concrete pavement	13,118 sq. yds.	2.26	29,647.13					2.156	28,282 84
Joints for concrete pavement	3,500 in. ft.	.12	424.80					.12	424 80
Shaping and rolling subgrade	13,118.2 sq. yds.	.12½	1,639.77					.125	1,639.78
Total			$32,722.65						$31,187.62
Sections "B" and "D."									
Excavation in macadam	683 cu. qds.	$0.75	$512.25					$0.75	$512.25
Earth shoulders	6,559 sq. yds.	.05	327.95					.05	327.95
Reinforced concrete pavement	475.6 sq. ft.	2.25	1,070.10					2.217	1,078.19
Brick pavement, monolithic type	12,619.6 sq. yds.	2.97½	37,611.73					2.978	37,649.66
Joints for concrete pavement	140 in. ft.	.15	21.00					.18	25 20
Shaping and rolling subgrade	13,118.2 sq. yds.	.12½	1,639.77					.125	1,639.78
Total			$41,182.80						$41,233.03
ITEMS—Grading.									
Excavation in earth	3,593 cu. yds.	$0.56	$2,012 08			$0.52	$1,868.36	$0.67	$2,407.31
Borrow in earth	1,351 cu. yds.	.56	758.24			.52	704.08	.79	1,069.66
Clearing and grubbing	20 trees	5.00	100.00			5.00	100.00	10.00	200.00
Total			$2,870.32				$2,672.44		$3,676.97
ITEMS—Culverts	6 culverts		$1,020 00		$1,080 00				$1,067 48

TABLE No. 4.—COUNTY ROAD PLANS APPROVED (OTHER THAN FEDERAL AID).

County.	Name.	Type.	Width, feet.	Length, feet.	Approximate estimate.	Date of approval.	Contract price.
Cherokee	Blake Road	Chat	14	53,423	$60,995.65	Aug. 13, 1917	$58,227.00
Wilson	W. A. Coleman Road	Gravel	16	7,336	4,615.03	Nov. 2, 1917	Force account.
Wilson	Frank Monroe	Gravel	16	42,263	36,556.46	Feb. 16, 1918	Force account.
Chase	Cottonwood Falls-Strong City	Macadam	24	2,681.5	5,768.00	Mar. 16, 1918	5,325.00
Scott	Great Plains Highway	Earth	20	58,365	608.00	Mar. 16, 1918	
Shawnee	West Tenth Avenue	Bituminous macadam	18	10,539	44,571.14	Mar. 23, 1918	44,569.45
Wyandotte	Wilson	Concrete	16	10,200	37,035.00	Apr. 25, 1918	33,252.50
Crawford	Ringo-Edson	Chat	14	21,000	14,191.06	Apr. 30, 1918	Canceled.
Montgomery	Independence-Elk City	Macadam base; gravel top	18	9,100	11,064.26	May 22, 1918	Force account.
Montgomery	Coffeyville-Caney	Gravel	18	5,497	5,744.39	May 22, 1918	Force account.
Wyandotte	Southwest Boulevard	Macadam resurfacing	16	8,400	14,755.06	June 17, 1918	
Harper	Zenda	Concrete	18	149	1,230.00	Aug. 29, 1918	Not constructed.
Harper	Harper	Concrete	18	250	2,030.00	Aug. 29, 1918	2,161.49
Harper	Zenda	Concrete	18	90	750.00	Aug. 29, 1918	Not constructed.
Montgomery	Caney, Okla	Earth	24	3,650	3,095.57	July 29, 1918	4,060 53
Wyandotte	Parallel	Resurface	16	12,600	.....	July 29, 1918	Canceled.

Tests of Road Building Material.

Pages 236 to 244, Inclusive.

TESTS OF ROAD BUILDING MATERIAL.

TABLE No. 5.—STONE.

County.	Lab. No.	Source of Supply.	Type of construction.	Location used.	Percent wear.	French co-efficient.	Toughness.	Cementation value.	Hardness.	Remarks.
Atchison	3 H 1	Kerford Q arry Co. Atchison, Kan.	One course reinforced concrete road.	Atchison, Kan	6.1	6.5	8	.....	.....	French co-efficient too low for one course construction.
Atchison	3 H 2	City Quarry, Atchison, Kan.	One course reinforced concrete road.	Atchison, Kan	6.6	6.1	8	.....	.....	French co-efficient too low for one course construction.
Atchison	3 H 3	Spalding Quarry Co.	One course reinforced concrete road.	Atchison, Kan	6.9	5.7	.....	.....	.....	French co-efficient too low for one course construction.
Chase	9 H 1	Cottonwood Falls	Macadam road	Not stated	5.9	6.8	4	24	.....	Satisfactory.
Chase	9 H 2	Sec. 9, T. 21, R. 8 E., ¼ mile N. Sharp's School.	Concrete road	Various places	5.3	7.5	7	.....	16	Specific gravity, 2.49; unit weight, 155; water absorbed, 2.6%.
Chase	9 H 3	Sec. 9, T. 21, R. 8, ¼ mile N. Sharp's School.	Concrete road.	Various places	6.2	6.5	10	.....	15	Specific gravity, 2.46; unit weight, 152; water absorbed, 2.2%.
Doniphan	22 H 1	Wathena, Kan	Brick base, concrete and macadam.	Doniphan County, Ocean to Ocean Highway.	4.6	8.7	7	.....	.....	Satisfactory in every particular.
Douglas	23 H 1	Big Springs	Concrete	Big Springs	5.6	7.1	8	.....	.....	Satisfactory for base course.
Douglas	23 H 2	Sec. 22, T. 12 S., R. 18 E.	Concrete	Douglas County	7.3	5.4	8	.....	.....	Not satisfactory for surface course.
Douglas	23 H 3	Sec. 25, T. 12 S., R. 18 E.	Concrete	Douglas County	8.6	4.6	7	.....	.....	Satisfactory for base course. Not satisfactory for surface course.
Douglas	23 H 4	Sec. 6, T. 13 S., R. 19 E.	Concrete	Fort to Fort Road	7.0	5.8	7	.....	.....	O. K. for base course.
Douglas	23 H 5	Sec. 6, T. 13 S., R. 19 E.	Concrete	Douglas County	11.2	3.5	9	.....	.....	Not satisfactory for concrete work; French co-efficient too low.
Ellsworth	27 H 1	Ellsworth	Concrete bridge	Ellsworth County	6.8	5.90	.....	.....	.....	Compressive strength 1-2-4 mix. 28 da. test 775 lbs. per sq. in. in average of 3 tests.
Geary	31 H 1	Junction City, Kaw Rock Crusher Co.	Base course of concrete and brick roads and bridge work.	Golden Belt Road	13.0	3.1	5	.....	.....	French co-efficient too low for these types of construction, indicating hardness is to o low.
Geary	31 H 2	Junction City, Kaw Rock Crusher Co.	Brick paving	Golden Belt Road	18.2	2.2	5	.....	.....	Stone has soft spots distributed throughout.
Geary	31 H 3	Kaw Rock Crusher Co.	Base for brick paving	Golden Belt Road	14.2	2.8	.....	.....	.....	Soft spots distributed throughout the stone.
Geary	31 H 4	Kaw Rock Crusher Co.	Base for brick paving	Golden Belt Road	17.0	2.3	.....	.....	.....	
Geary	31 H 5	Kaw Rock Crusher Co.	Base for brick paving	Geary County	17.0	2.3	.....	.....	.....	

Labette	50 H 1	Labette County	Macadam	Labette County	5.3	7.5	.....	32	.....	
Lincoln	53 H 1	Property of L. J. Reese, Lincoln, Kan.	Concrete roads and bridges.	Saline County and Gray County.	2.7	15.0	9	.....	17.5	An excellent stone.
McPherson	59 H 1	Property of P. Dale, Canton, Kan.	Concrete roads and bridges.	McPherson County	3.6	11.0	6	.....	19	An excellent stone.
Montgomery	63 H 5	Montgomery County	Macadam and concrete	.....	7.4	5.4	.....	24	.....	French co-efficient too low. Can be used in base course of 2 course concrete pavement.
Montgomery	63 H 6	Montgomery County	Macadam and concrete	.....	5.3	8.6	4	15	.....	Toughness value too low; this rock can be used in base course of a 2 course pavement.
Sedgwick	87 H 1	Eldorado, Butler County	Concrete and brick	Sedgwick County	29.0	1.4	6	.....	.....	French co-efficient too low.
Sedgwick	87 H 2	Elk County, Kan., Moline.	.....	Sedgwick County	6.0	6.7	6	.....	.....	O. K. for base. brick, bituminous concrete and for base course of cement concrete road.
Shawnee	89 H 1	.....	Bituminous macadam	W. 10th St., Topeka	7.6	5.3	8	29	.....	Cementation value of screenings, 49.
Shawnee	89 H 2	Martin's Hill, Topeka	Bituminous macadam	W. 10th St., Topeka	7.4	5.4	.....	32	.....	French co-efficient satisfactory for base course only.
Shawnee	89 H 3	Topeka	Concrete road	E. 6th St., Topeka	8.2	5.0	8	.....	.....	Cementation value satisfactory. French co-efficient too low for base course and for surface course. Toughness satisfactory.
Shawnee	89 H 4	W. A. Johnson Quarries, Topeka.	Macadam and concrete	W. 10th and E. 6th Sts., Topeka.	4.1	9.8	9	20	.....	Satisfactory for concrete road construction. For macadam, cementation value should be 25. Necessary to add a bonding gravel for bituminous macadam.
Shawnee	89 H 5	W. A. Johnson Quarries, Topeka.	Concrete and bituminous.	W. 10th and E. 6th Sts., Topeka.	3.7	10.9	6	12	.....	Satisfactory for concrete road construction. For macadam, cementation value should be 25. Necessary to add a bonding gravel for bituminous macadam.
Shawnee	89 H 6	Martin's Hill, Topeka	Macadam, bituminous	W. 10th St., Topeka	5.7	7.0	.....	26	.....	Satisfactory for concrete road construction. For macadam, cementation value should be 25. Necessary to add a bonding gravel for bituminous macadam.
Shawnee	89 H 7	Martin's Hill, Topeka	Macadam and concrete	E. 6th St., Topeka	6.0	6.7	.....	22	.....	Satisfactory for concrete road construction. For macadam, cementation value should be 25. Necessary to add a bonding gravel for bituminous macadam.
Wyandotte	105 H 1	Prince Johnson Crusher Company.	Macadam construction	Southwest Boulevard Rosedale.	6.7	6.0	.....	.....	.....	
Wyandotte	105 H 1	Rosedale, Kan	Macadam construction	Southwest Boulevard Rosedale.	13.8	2.9	.....	.....	.....	

TABLE No. 5—STONE—Concluded.

County.	Lab. No.	Source of Supply.	Type of construction.	Location used.	Percent wear.	French co-efficient.	Toughness.	Cementation value.	Hardness.	Remarks.
Wyandotte	105 H 2	Antone Road	Macadam construction	Southwest Boulevard Rosedale.	7.2	5.6	.....	.....	.....	
Wyandotte	105 H 3	Brown Bros. Quarry	Concrete road	Wyandotte County	4.9	8.2	5	.....	.....	Toughness should be 6 for use in surface course.
Wyandotte	105 H 4	Brown Bros. Quarry	Concrete road	Wyandotte County	6.9	8.3	5	.....	.....	Toughness should be 6 for use in surface course.
Wyandotte	105 H 5	Prince Johnson Crusher Company.	Not stated	Wyandotte County	4.6	8.6	4	.....	.....	Toughness should be 6 for use in surface course.
Wyandotte	105 H 6	City Park, K. C., Mo.	.....	Wyandotte County	5.3	7.5	6	.....	.....	Toughness should be 6 for use in surface course.
Wyandotte	105 H 7	Abandoned City Park, K. C., Mo.	Concrete road	Wyandotte County	4.9	8.2	9	.....	.....	Toughness should be 6 for use in surface course.
Wyandotte	105 H 8	Abandoned City Park, K. C. Mo.	Concrete road	Wyandotte County	5.4	7.4	.....	.....	.....	Toughness test not made as cores could not be drilled. Sample would chip.
Wyandotte	105 H 9	W. M. Spencer Quarry, Independence, Mo.	Concrete road	Wyandotte County	6.5	6.1	5	.....	.....	Satisfactory for base course.
Wyandotte	105 H 10	White Church, Kan.	Bituminous macadam	Wyandotte County	6.8	5.9	5	44	.....	Satisfactory.
Wyandotte	105 H 11	Virden Crushed Rock Co.	.....	Wyandotte County	7.3	5.2	5	.....	.....	French co-efficient should be at least 8 and toughness 6. Soft yellow streaks all through stone.
Wyandotte	105 H 12	Virden Crushed Rock Co.	Concrete road	Wyandotte County	5.1	7.8	8	.....	.....	French co-efficient should not be less than 8. Toughness is O. K.
Wyandotte	105 H 13	American Crusher Co., Rosedale, Kan.	Water-bound macadam	Southwest Boulevard Rosedale, Kan.	8.1	5.0	.....	20	.....	Cementation value should be 25.
Wyandotte	105 H 14	Quarry near Turner, Kan.	Concrete road	Wilson Road, Wyandotte	4.5	9.0	13	.....	.....	An excellent stone.
Wyandotte	105 H 15	Rosedale, Kan.	Water-bound macadam	Rosedale, Kan.	8.0	5.0	.....	24	.....	Cementation value should be 25. A satisfactory stone.

TABLE No. 6.—BRICK.

County.	Lab. No.	Manufactured by	Type of construction.	Location used.	Percent loss.	Maximum variation.	Remarks.
Geary	31 B 0				18 1	.....	Maximum loss on one individual brick, 20.1%.
Geary	31 B 1				20.38	.....	Maximum loss on brick 24.3%.
Geary	31 B 2				22.3	.....	Maximum loss any one brick, 30.4%. Next greatest loss, 24.7%.
Geary	31 B 3				20.16	.....	Maximum loss on individual brick, 29.5%. Next greatest, 21.98%.
Geary	31 B 4				21.5	.....	Maximum loss any one brick, 31.98. Next greatest, 22.2%
Geary	31 B 5				20	7.1	———
Geary	31 B 6				23.1	15.2	———
Geary	31 B 7				25	13.6	———
Geary	31 B 8				22.6	13.8	———
Geary	31 B 9				20.7	9	———
Geary	31 B 10				19.7	4.7	———
Geary	31 B 11				19.5	9.8	———
Geary	31 B 12				20	8.2	———
Geary	31 B 13	Coffeyville Vitrified Brick and Tile Company	Monolithic brick pavement.	Junction City, Kansas, Federal Aid Project, No. 12	19.5	8.5	———
Geary	31 B 14				21.0	10.5	———
Geary	31 B 15				20.2	9 8	———
Geary	31 B 16				20.9	5.6	———
Geary	31 B 17				20	5.9	———
Geary	31 B 18				17.9	6.7	———
Geary	31 B 19				24.1	12.8	This is a re-sample of 31 B 6-7-8.
Geary	31 B 20				21.4	8.9	This is a re-sample of 31 B 6-7-8.
Geary	31 B 21				20.2	10.5	This is a re-sample of 31 B 6-7-8.
Geary	31 B 22				22.0	21.2	
Geary	31 B 23				19.2	7.4	———
Geary	31 B 24				19.8	8.0	———
Geary	31 B 25				25.4	20.7	———
Geary	31 B 26				20	10.5	———
Geary	31 B 27				20.5	5.2	———
Geary	31 B 28				20.6	7.9	———
Geary	31 B 29				21.2	9.7	———

TABLE No. 7.—CEMENT.

County.	Lab. No.	Brand or manufactured by	Type of construction.	Location used.	Soundness	Percent retained on 200 sieve	Specific gravity	Initial set.	Tensile strength. 7-day	Tensile strength. 28-day	Remarks.
Bourbon	6 C 4	Ash Grove White Lime Company	Concrete Bridge	Fulton, Kan.	O.K.	19.5	.....	1 hr., 45 min.	262	333	———
Bourbon	6 C 5				O.K.	18.5	.....	1 hr., 40 min.	242	293	———
Bourbon	6 C 6				O.K.	19.5	.....	1 hr., 20 min.	240	361	———
Geary	31 C 1	Dewey Portland Cement Co.	Cement culvert and road.	Junction City, Kan.	O.K.	16.0	3.11	.....	146	242	———
Geary	31 C 2	Lehigh Cement Co.	Not stated	Camp Funston	O.K.	.....	3.12	.....	.....	.....	———
Geary	31 C 3	Ash Grove	Not stated	Camp Funston	O.K.	.....	3.12	.....	.....	.....	———
Geary	31 C 4				O.K.	.....	3.03	.....	.....	.....	———
Geary	31 C 5	Missouri Portland Cement Company	Concrete road	Federal Aid Project, No. 12	O.K.	.....	3.09	.....	.....	.....	———
Geary	31 C 6				O.K.	19.2	.....	1 hr., 45 min.	211	287	———
Geary	31 C 7				O.K.	17.0	.....	2 hrs., 6 min	265	317	———
Geary	31 C 8				O.K.	18.2	.....	1 hr., 57 min.	234	298	———
Geary	31 C 9				O.K.	16.4	.....	2 hrs.	211	295	———
Geary	31 C 10				O.K.	18.0	.....	1 hr., 51 min.	265	347	———
Geary	31 C 11				O.K.	19.0	.....	1 hr., 55 min.	217	297	———
Geary	31 C 12				O.K.	19.8	.....	1 hr., 56 min.	203	230	———
Harper	39 C 1	Lehigh Co.	Concrete bridge	Harper Co.	.....	19.5	3.11	.....	211	281	———
Kingman	48 C 1	Monarch Cement Co.	Concrete bridge	Zenda, Kan.	.....	21.6	3.11	.....	192	.....	Not passed.
Kingman	48 C 2	Monarch Cement Co	Concrete bridge	Zenda, Kan.	.....	20.9	3.05	.....	207	297	Specific gravity too low.
Kingman	48 C 3	Monarch Cement Co	Concrete bridge	Zenda, Kan.	.....	20.9	3.14	.....	197	263	Tensile strength low.
Sheridan	60 C 1	Ideal Cement, Colo. Portland Cement Co	Concrete bridge	Sheridan County	.....	20.4	3.18	.....	106	.....	Did not pass 7-day test; may be rejected.

TABLE No. 8.—GRAVEL.

County.	Lab. No.	Source of supply.	Type of construction.	Location used.	Percent silt in clay	Percent inorganic matter	Percent wear	Cementation	Remarks.
Barton	5 G 1	Pit in Arkansas River	Concrete base, brick road.	Barton County, Santa Fe Trail.	1.4	.....	24.8	.....	———
Barton	5 G 2	Pit in Arkansas River	Concrete base, brick road.	Barton County, Santa Fe Trail.	2.4	.....	21.9	.....	———
Chase	9 G 1	¾ mile south of Cottonwood Falls.	Gravel road	Cottonwood Falls and Strong City Road.	19.3	2.24	9.1	.....	———
Doniphan	22 G 1	Wathena, Kan	Concrete, gravel, or brick roads.	Doniphan County	7.5	0.07	6.7	.....	Percent of silt too high; too much fine aggregate.
Finney	28 G 1	Sec. 18, T. 24, R. 33	Base for brick road and concrete bridges.	Finney County	2.0	0.31	.....	.....	———
Finney	28 G 2	Sec. 9, T. 24, R. 32	Concrete	Great Plains Highway	1.0	0.25	.....	.....	Voids, 32%.
Geary	31 G 1	Abilene, Kan	Concrete road	Golden Belt Road	2.1	0.52	.....	.....	All this material passed ¼-inch screen.
Johnson	46 G 1	Chicago, Ill	Gravel and concrete road	Johnson County	3.5	.....	16 6	16	Deficient in clay.
Johnson	46 G 2	Chicago, Ill	Gravel and concrete road	Johnson County	2.6	.....	15.9	81	———
Johnson	46 G 3	Chicago, Ill	Gravel and concrete road	Johnson County	5.7	.....	11.4	98	———
Kiowa	49 G 1	Kiowa County	Concrete	Not stated	0.02	.....	4.6	.....	———
Kiowa	49 G 2	Kiowa County	Concrete bridge	Not stated	5..	.....	.....	.....	96 6% of this material passed ¼-inch screen.
Labette	50 G 1	Stire Ford Bar	Gravel road	Labette County	12.5	1.38	7 4	.....	———
Labette	50 G 2	Ruttgen & Peterson	Gravel road	Labette County	6.0	0.78	14 2	.....	Deficient in clay.
Lincoln	53 G 1	Property of J. Peterson, Lincoln, Kan.	Concrete bridge	Lincoln, Kan	23.8	.....	39.9	.....	This gravel is unsuitable for bridge work because of clay content and high percent of wear.
Riley	81 G 1	Blue River	.....	.....	.....	.....	.....	.....	———
Riley	81 G 2	Blue River	.....	.....	.....	.....	.....	.....	———
Riley	81 G 3	Manhattan Sand Co	.....	.....	.....	.....	.....	.....	Gravel contained natural moisture.
Riley	81 G 4	Manhattan Sand Co	Concrete construction	Golden Belt Road, Geary County.	0.7	.....	.....	.....	———
Riley	81 G 5	Manhattan Sand Co	Concrete construction	Golden Belt Road, Geary County.	.....	.....	20.6	.....	———
Sedgwick	87 G 1	Walnut River	Concrete construction	Central Avenue paving project; Sedgwick Co.	0.5	.....	9.1	.....	———
Wilson	103 G 1	Property of Frank Monroe	Gravel road	Wilson County Fredonia to Benedict.	18.0	.....	10.4	.....	———

TABLE No. 8a—GRAVEL—MECHANICAL ANALYSIS.

Lab. No.	Percent retained on								Passing
	3-inch	2½-inch	2-inch	1½-inch	1-inch	¾-inch	½-inch	¼-inch	¼-inch
5 G 1	0.0	0.0	0.0	3.0	3.6	4.1	6.2	19.9	62.7
5 G 2	0.0	0.0	0.0	10.8	16.8	.....	34.3	22.4	15.3
9 G 1	0.0	0.0	0.0	14.5	12.0	8.5	12.5	16.8	35.7
22 G 1	0.0	0.0	0.0	0.0	3.4	7.8	9.5	10.6	68.6
28 G 1	0.0	0.0	0.0	0.0	4.9	16.5	26.2	18.9	33.4
28 G 2	0.0	0.0	0.0	0.0	0.0	0.0	1.6	10.1	88.3
31 G 1*	.....	.....	.....	.....	.....	.....	.....	.....	.....
46 G 1	4.8	8.5	11.5	13.4	10.8	5.8	8.0	13.3	23.8
46 G 2	0.0	7.9	4.7	3.1	8.4	4.9	8.5	12.5	49.9
46 G 3	0.0	0.0	3.4	2.5	6.0	4.0	9.0	11.2	62.8
49 G 1	0.0	0.0	0.0	62.1	34.7	1.8	0.2	0.1	0.2
49 G 2	0.0	0.0	0.0	0.0	0.0	0.0	0.5	2.9	96.6
50 G 1	0.0	0.0	0.0	0.0	0.0	9.7	15.4	30.4	44.5
50 G 2	0.0	0.0	0.0	0.0	0.8	4.0	24.7	28.5	41.8
53 G 1	3.4	1.4	0.0	3.5	12.6	10.7	18.2	28.1	27.1
81 G 1	0.0	0.0	0.0	0.0	0.0	1.5	10.0	30.7	57.7
81 G 2	0.0	0.0	0.0	3.3	1.9	.....	13.4	37.0	44.4
81 G 4	0.0	0.0	0.0	0.0	0.0	1.7	2.5	5.1	90.7
81 G 5	0.0	0.0	0.0	6.4	6.4	3.2	9.1	31.7	43.2
87 G 1	0.0	0.0	0.0	8.5	24.8	18.0	25.0	17.0	6.7
103 G 1	0.0	0.0	5.2	12.3	23.3	15.1	13.2	10.9	20.0

* All passed, ¼ inch.

TABLE No. 9.—SAND.

County.	Lab. No.	Source of supply.	Type of construction.	Silt in sand.	Organic matter.	Tensile strength. Sample sand. 7 days.	Tensile strength. Sample sand. 28 days.	Tensile strength. Ottawa sand. 7 days.	Tensile strength. Ottawa sand. 28 days.	Remarks.
Brown	7 F 1	Powhattan Township	Concrete bridge	4.32	.....	230	.....	290	.....	———
Brown	7 F 2	Sand bank	Concrete	9.40	.....	229	.....	275	.....	———
Dickinson	21 F 1	Abilene, Kan.	General concrete	2.10	0.32	146	183	189	264	———
Geary	31 F 1	Junction City, Kan.	Concrete road (Brick pavement base.)	2.14	0.34	190	.....	182	.....	———
Geary	31 F 2	Republican River	Concrete road (Brick pavement base.)	0.27	.....	197	.....	182	.....	———
Geary	31 F 3	Junction City	Concrete road (Brick pavement base.)	0.25	.....	146	204	145	195	———
Geary	31 F 4	Junction City, Kan.	Concrete road (Brick pavement base.)	1.50	.....	2.07	.....	202	.....	Clean and apparently of highest quality. Specific gravity, 2.54.
Kingman	48 F 1	Zenda, Kan.	Concrete bridge	0.20	0 04	195	.....	212	.....	Tensile strength slightly low.
Kingman	48 F 2	Zenda, Kan.	Concrete bridge	1.60	0.50	202	.....	212	.....	Tensile strength slightly low.
Kingman	48 F 3	Calista, Kan.	Concrete bridge	1.00	.....	240	.....	212	.....	Satisfactory.
Pawnee	73 FG 1	Arkansas River, Hamburg, Kan.	Base for brick pavement	0.50	.....	219	270	150	263	Good clean sand.
Pawnee	73 FG 2	Arkansas River, Pawnee Rock, Kan.	Base for brick pavement	0.42	.....	185	318	144	257	Good clean sand.
Pawnee	73 FG 3	Arkansas River, Larned, Kan.	Base for brick pavement	0.38	.....	182	281	144	257	Good clean sand.
Pawnee	73 FG 4	Arkansas River, Nettleton, Kan.	Base for brick pavement	0.30	.....	208	318	192	303	Good clean sand.
Pawnee	73 FG 5	Arkansas River, Garfield, Kan.	Base for brick pavement	0.84	.....	198	292	192	303	———
Rawlins	77 F 1	Driftwood Township, Rawlins County.	Concrete bridge	2.20	0.25	232	.....	202	.....	A good aggregate.
Riley	81 F 1	.....	.....	4.1	.....	.....	.....	.....	.....	A good aggregate.
Sedgwick	87 F 1	Little Arkansas River, Wichita, Kan.	Concrete bridge and road construction.	0.53	0.01	295	.....	269	.....	Sand very clean and free from silt and clay.
Wyandotte	105 F 1	Kaw River, Turner, Kan.	Concrete road	0.30	.....	.....	.....	.....	.....	Tension test—3 days. Ottawa sand—78. Sample sand—116. O. K.

TABLE No. 9a—SAND—MECHANICAL ANALYSIS.

Lab. No.	Percent retained on									Percent passing
	¼	10	20	30	40	50	80	100	200	200
7 F 1.....	0.7	3.3	12.7	27.5	22.1	15.2	11.3	1.4	1.0	0.5
7 F 2.....	4.9	7.4	8.7	13.2	13.4	14.9	21.8	2.7	2.8	10.3
21 F 1.....	0.2	6.0	21.9	36.0	21.7	9.6	3.8	0.3	0.1	0.4
31 F 1.....	0.0	8.3	27.6	36.8	17.9	6.6	1.6	0.2	0.2	0.6
31 F 2.....	0.0	1.9	7.6	21.6	28.4	23.5	13.7	1.1	1.5	0.5
31 F 3.....	1.9	17.1	20.9	18.3	16.6	16.1	10.0	0.5	0.3	0.1
31 F 4.....	0.5	4.6	14.5	36.5	24.2	12.7	4.5	0.5	1.2	0.5
48 F 1.....	0.0	6.2	11.8	19.8	25.1	22.7	13.3	0.5	0.3	0.2
48 F 2.....	0.0	10.5	22.5	30.8	22.4	10.3	3.1	0.2	0.1	0.0
48 F 3.....	0.0	18.7	28.8	30.6	13.5	5.4	2.6	0.2	0.1	0.0
73 FG 1.....	3.3	19.7	21.2	18.1	18.0	13.3	4.8	0.4	0.7	0.4
73 FG 2.....	4.6	18.9	27.4	20.3	12.4	9.9	5.2	0.7	0.4	0.1
73 FG 3.....	2.7	17.9	25.4	28.4	9.9	10.9	4.2	0.3	0.2	0.1
73 FG 4.....	2.5	18.8	25.8	25.6	15.3	8.3	3.1	0.1	0.2	0.1
73 FG 5.....	2.2	18.0	26.3	24.6	13.5	9.0	5.6	0.3	0.3	0.2
77 F 1.....	4.1	19.3	24.5	23.3	13.1	8.5	4.5	0.9	0.7	0.9
87 F 1.....	8.48	.....	49 2	.....	.....	38.2	.....	3.9	0.3	.....
105 F 1.....	0 0	3 7	18 4	32 2	24.1	15 1	5.2	0.8	0.3	0.1

Classified Expenditures for Construction of all County Bridges and Culverts, 1918.

Pages 246 to 251, Inclusive.

TABLE No. 10.—CLASSIFIED EXPENDITURES FOR CONSTRUCTION OF ALL COUNTY BRIDGES AND CULVERTS, 1918.

County.	Concrete box culverts.		Circular concrete culverts.		Concrete arch culverts.		Concrete pipe culverts.		Clay pipe culverts incased in concrete.		Masonry arch culverts.		Concrete slab bridges on concrete or masonry abutment.	
	No.	Cost.	No.	Cost.	No.	Cost.	No.	Cost.	No.	Cost.	No.	Cost.	No.	Cost.
Allen														
Anderson			1	$111.28			1	$14.72					6	$1,824.67
Atchison	20	$19,888.32											12	16,446.97
Barber														
Barton	2	378.00												
Bourbon	30	3,114.79											1½	911.12
Brown	13	10,132.42	1	207.00	2	$1,559.59	1	392.61	1	$369.14			4	4,821.63
Butler														
Chase	2	533.81	2	150.00										
Chautauqua	1	347.00												
Cherokee	10	3,881.86											8	7,187.44
Cheyenne														
Clark													15	6,162.49
Clay	3	825.00			6	820.00							5	3,563.00
Cloud														
Coffey									1	142.85			9	4,266.67
Comanche													18	6,954.90
Cowley	17	1,824.00											1	99.00
Crawford	1	550.00											29	7,461.19
Decatur	1	191.85												
Dickinson	2	491.33											14	2,859.01
Doniphan														
Douglas	14	975.83			1	1,098.32							5	2,784.91
Edwards														
Elk	17	1,561.38					4	87.75						
Ellis														
Ellsworth													1	741.83
Finney	7	458.96											4	2,587.01
Ford														
Franklin														

Geary					2	*762.85							5	5,663.98
Gove														
Graham														
Grant														
Gray													1	574.28
Greeley														
Greenwood														13,486.48
Hamilton	4	342.84											3	943.68
Harper													2	4,574.00
Harvey													2	5,359.60
Haskell														
Hodgeman														
Jackson					1	889.10					1	†3300.00	3	3,004.90
Jefferson	6	2,443.03												
Jewell									2	625.00			15	15,565.00
Johnson	13	2,910.43							1	297.91			4	2,529.33
Kearny	4	383.53											2	945.64
Kingman	7	124.85			1	886.10							7	4,140.77
Kiowa														
Labette	4	557.73			3	700.00	10	449.10					6	3,841.45
Lane					3	169.55							4	960.64
Leavenworth	4	2,564.27	1	2,332.03										
Lincoln	9	1,854.00									1	1,500.00		
Linn														
Logan	2	344.51												
Lyon													16	5,187.80
Marion														
Marshall	15	7,781.79	13	3,176.63	8	4,364.50	1	26.00					7	5,034.49
McPherson													27	12,443.58
Meade														
Miami	2	331.22	4	905.01			50	1,593.04					17	3,266.80
Mitchell											2	750.36	11	8,372.65
Montgomery	3	683.59											4	3,998.03
Morris	14	2,966.02											11	7,437.36
Morton														
Nemaha	12	6,507.53			1	1,008.58	3	1,067.10					10	12,071.53
Neosho	3	173.97												
Ness														
Norton														
Osage														

*Half cost. †Masonry box culvert. ‡Paid under bond issue.

TABLE No. 10.—CONTINUED.

County.	Concrete box culverts.		Circular concrete culverts.		Concrete arch culverts.		Concrete pipe culverts.		Clay pipe culverts incased in concrete.		Masonry arch culverts.		Concrete slab bridges on concrete or masonry abutment.	
	No.	Cost.	No	Cost.	No.	Cost.	No.	Cost.	No.	Cost.	No	Cost.	No.	Cost.
Osborne	1	$160.00									1	$714.00		
Ottawa														
Pawnee														
Phillips	8	616.42	11	$454.82	32	$2,061.06							4	$3,626.51
Pottawatomie														
Pratt														
Rawlins	3	163.10												
Reno														
Republic														
Rice	25	3,851.87			1	205.14							4	7,033.00
Riley														
Rooks	3	1,456.24											2	1,246.91
Rush			8	455.77	1	201.00					1	1,600.00	2	823.80
Russell	6	1,031.15									4	1,037.34		
Saline					1	549.50	3	$129.60					21	5,554.27
Scott														
Sedgwick		1,160.18												6,198.54
Seward														
Shawnee														
Sheridan														
Sherman														
Smith														
Stafford					1	135 00							2	1,200.00
Stanton														
Stevens														
Sumner	14	2,702.47			3	347.35							17	8,418.78
Thomas														
Trego	5	538.52	6	827.30									10	3,025.75
Wabaunsee														
Wallace														
Washington														
Wichita														
Wilson								414.79						
Woodson														
Wyandotte	1	577.50					14	1,059.30						

TABLE No. 10—CONTINUED.

County.	Concrete through girders on concrete or masonry abutment.		Concrete T girders on concrete or masonry abutment.		Concrete on masonry arches.		Steel spans on concrete or masonry abutment.		Temporary construction.		Total.	
	No.	Cost.	No.	Cost.	No.	Cost.	No.	Cost.	No.	Cost.	No.	Cost.
Allen												
Anderson				$1,380.04					2	$47 19	10	$3,377.90
Atchison	6	$9,513.04	2	3,000.00						8,062.98		56,911.31
Barber												
Barton									28	1,00.31	30	1,378.31
Bourbon	2	2,842.00	1	1,350.75			1	$2,353.36			35½	10,573.02
Brown	4	6,333.55			3	$404.40	2	2,280.85			31	26,501.19
Butler												
Chase	1	1,895.48					6	8,447.16	8	1,245.67	19	12,212.12
Chautauqua											1	347 00
Cherokee	4	7,925.29									22	19,021.59
Cheyenne												
Clark			4	2,091.91					13	351 34	32	8,605.74
Clay									1	726.00	15	5,934 00
Cloud												
Coffey	2	7,014.27									12	11,423.79
Comanche											18	6,954.90
Cowley	1	1,108.00	1	401.00					1	36.00	21	3,463.00
Crawford							6	9,063.39			36	17,074.58
Decatur									2	1,500.81	3	1,692.66
Dickinson			2	5,617.77			1	580.85	1	27.15	20	9,576.11
Doniphan										14,307.22		14,307.22
Douglas	1	294.25	3	2,236.81			8	3,608.25	3	4,808.78	35	15,807.15
Edwards									25	1,365.00	25	1,365.00
Elk											21	1,649.13
Ellis												
Ellsworth					1	9,660.86					2	10,420.69
Finney					2	47.62			44	2,598.95	57	5,692.54
Ford												
Franklin												
Geary							1	*2,630.97		551.26		9,608.06
Gove												
Graham												
Grant												
Gray									29	977.90	30	1,552.16

TABLE No. 10—CONCLUDED.

County.	Concrete through girders on concrete or masonry abutment.		Concrete T girders on concrete or masonry abutment.		Concrete on masonry arches.		Steel spans on concrete or masonry abutment.		Temporary construction.		Total.	
	No.	Cost.	No.	Cost.	No.	Cost.	No.	Cost.	No.	Cost.	No.	Cost.
Greeley												
Greenwood												$13,486.43
Hamilton	2	$5,294.36									9	6,880.88
Harper	2	6,775.00							3	$644.91	7	11,993 91
Harvey									2	1,998.59	4	7,343 59
Haskell									10	420.73	10	420.73
Hodgeman												
Jackson			6	$3,758.50							11	8,992.59
Jefferson									8	318.48	14	2,761 91
Jewell	1	1,660.00								11,496.00		29,346.00
Johnson					1	$266.75	3	$2,977.33	4	309.09	27	9,290.84
Kearny											6	1,329.17
Kingman			1	372.07			6	7,785.50	15	9,119.86	37	22,481.45
Kiowa												
Labette	1	1,878.53	3	13,777.59	1	1,000.00	1	1,970.30			29	25,1:4.70
Lane											7	1,130 19
Leavenworth							7	8,889.90			12	12,786.90
Lincoln							6	2,899.12	52	2,048.40	68	8,301.52
Linn												
Logan									2	1,144.33	4	1,488.84
Lyon			4	11,067.45			9	8,686.20		3,945.36		28,896.81
Marion												
Marshall	2	5,903.20		2,254.97			9	8,789.58		1,252.44		38,5 3.60
McPherson							4	5,246.40		1,861.46	31	10,061.44
Meade												
Miami								1,540.13		389.33	73	8,025.53
Mitchell	1	1,052.56					3	1,792.35	4	118.85	21	12,085 97
Montgomery									24	871.48	34	5,553.10
Morris	1	1,301.57					1	2,340.91	6	281.02	33	14,326.88
Morton												
Nemaha			3	6,061.86			1	839.56	11	386.17	42	27,942.33
Neosho									1	85.99	4	250.96
Ness												
Norton												
Osage												

Osborne					1	728.00	1	1,071.00	5	310.00	9	2,063.00
Ottawa												
Pawnee												
Phillips				4,300.70			6	2,124.79	40	1,028.62	103	14,212.92
Pottawatomie												
Pratt												
Rawlins											3	163 10
Reno										15,206.15		15,206.15
Republic												
Rice							4	7,380.35		8,374.91	34	26,845.27
Riley												
Rooks							2	1,768.95	22	919.47	29	5,391.58
Rush							1	3,000.00	140	5,166.18	133	11,246 75
Russell	1	6.73			10	7,923.69	1	249.61		575.33	23	10,823.95
Saline			4	1,992.66					13	458.00	43	6,684.03
Scott									2	739.78	2	739.78
Sedgwick								91.45		1,283.16		8,733.33
Seward												
Shawnee						14,756.35				13,042.79		27,799.14
Sheridan												
Sherman												
Smith												
Stafford			2	300.00							3	1,635.00
Stanton												
Stevens												
Sumner												11,468 60
Thomas												
Trego							1	1,546.99	1	506.48	23	6,445.04
Wabaunsee												
Wallace												
Washington												
Wichita												
Wilson		4,142.04										4,556.83
Woodson												
Wyandotte							1	‡174,556 00			16	176,192.80

*Half cost. †Masonry box culvert. ‡Paid under bond issue.

TABLE No. 11.—DETAILED EXPENDITURES OF HARD ROAD FUNDS.

Counties.	Name of road.	Project Number.	Section	Type.	Width, feet.	Length, miles.	Grading.			Bridges and culverts.	
							Cubic yards.	Cost per cu. yd.	Total cost.	No.	Cost.
Atchison, 1917	1. Catholic Cementery Road			Concrete	16	1	24,042	$0.40	$961.61		
Atchison, 1917	2. Challis Lane			Macadam	16	.78	11,734	.50	586.70		
Atchison, 1917	3. Waggoner Road			Concrete	16						
Wilson, 1917	1. Neodesha-Independence			Gravel	16	2	2,250*	.35	792.05		
Wilson, 1917	2. Neodesha Lafontaine Road		1	Gravel	18	2.25				1	$72.91
Bourbon, 1918	1. Fort Scott, Nevada		1		14	3.33					
Bourbon, 1918	2. McCleverty		1		12	2.5					
Bourbon, 1918	3. Fort Scott, Pittsburg		1		12	.25					
Bourbon, 1918	4. Hornaday		1								
Bourbon, 1918	5. Jefferson Highway, North		1								
Chase, 1918	Cottonwood Falls, Strong City	1		Macadam	24	.5	1,525	.35	533.75		
Geary, 1918	1. On Reservation joins Junction City & N. Milford roads			Bituminous macadam	16	.44					
Geary, 1918	2. Fort Riley Road	12	1	Brick and concrete	20	1.12	683	.75	‡		
Wyandotte, 1918	1. Kaw Valley			Waterbound macadam	16	5.25	2,307	.35	807.10		
Wyandotte, 1918	2. Parallel			Waterbound macadam	16						
Wyandotte, 1918	3. Southwest Boulevard			Waterbound macadam	16		900	.45	630.00	Pipe.	1,141.00
Wyandotte, 1918	4. Widson			Concrete	16		2,000	.40	560.00		633.00
Wyandotte, 1918	5. 47th Street			Bituminous macadam	10	.14					

*Grading was done before hard surfacing was contemplated. †Included in grading. ‡None to date.

TABLE No. 11.—CONCLUDED.

Counties.	Surfacing.			Earth shoulders, side road and ditches.			Cost of miscellaneous work.	Total cost of road.	Paid by		Work begun.	Work completed.	Engineering cost.		
	Sq. yds.	Cost per Sq. yd.	Total cost.	Sq. yds.	Cost per sq. yd.	Total cost.			County.	Donations, etc.			Surveys and plans.	Construction.	Total.
Atchison...(1)	9,426.9	$1.22	$11,500.82	.....	.....	.....	.....	$12,462.53	$12,462.53	.....	Oct., 1916	April 3, 1917	.....	.....	.....
Atchison...(2)	7,644.3	.57	4,357 25	.....	.....	.....	.....	4,943 95	4,943.95	.....	Oct., 1916	Dec. 4, 1916	.....	.....	.....
Atchison...(3)	.....	1.28	1,232.31	.....	.....	.....	.....	1,232.31	1,232.31	.....	.....	Nov. 6, 1916	.....	.....	.....
Wilson ....(1)	18,133	.11	1,940.87	†.....	.....	.....	.....	2,732 92	2,232.92	$500.00	Oct. 1, 1916	May 1, 1917	.....	$50.00	$50.00
Wilson.....(2)	21,120	.14	3,159.72	.....	.....	.....	.....	3,232 63	2,732.63	500.00	Jan. 1, 1917	Aug. 30, 1917	.....	50.00	50.00
Bourbon...(1)	27,364	.21	5,922 53	11,733	$0.06	$709.14	$553.43	7,185 10	.....	.....	.....	.....	.....	.....	.....
Bourbon...(2)	17,610	.15	2,797.47	11,733	.08	872.29	296.55	3,966 31	.....	.....	.....	.....	.....	.....	.....
Bourbon...(3)	1,760	.23	416.47	.....	.....	.....	.....	416 47	.....	.....	.....	.....	.....	.....	.....
Bourbon...(4)	.....	.....	21 40	.....	.....	.....	.....	21 40	.....	.....	.....	.....	.....	.....	.....
Bourbon...(5)	.....	.....	2.50	.....	.....	.....	.....	2.50	.....	.....	.....	.....	.....	.....	.....
Chase.....	7,151	0.6	4,791.25	.....	.....	.....	.....	5,325.00	.....	.....	.....	.....	.....	.....	.....
Geary.....(1)	4,165	.....	3,708.00	.....	.....	.....	.....	3,708 00	3,708.00	.....	.....	Oct., 1917	.....	.....	.....
Geary.....(2)	13,118.2	2.25	‡.....	6,559	.05	‡.....	38.00	38 00	38.00	.....	Aug. 13, 1918	.....	$160.00	65.14	225.14
Wyandotte (1)	50,000	.445	22,631.00	.....	.....	.....	3,707.00	4,740.41	.....	.....	.....	.....	.....	.....	.....
Wyandotte (2)	.....	.....	.....	.....	.....	.....	109.00	109 00	.....	.....	.....	.....	.....	.....	.....
Wyandotte (3)	.....	.....	.....	.....	.....	.....	.....	1,771 00	.....	.....	.....	.....	.....	.....	.....
Wyandotte (4)	744	.97	361.00	.....	.....	.....	.....	1,554 00	.....	.....	.....	.....	.....	.....	.....
Wyandotte (5)	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

*Grading was done before hard surfacing was contemplated. †Included in grading. ‡None to date.

TABLE No. 12.—MAINTENANCE AND UPKEEP OF SURFACED COUNTY ROADS DURING 1918.

Counties.	Type of road.	Length, miles.	Slab or surface.		Metal shoulders.			Earth shoulders, side roads and ditches.		Total cost.
			Sq. yds.	Cost.	Type.	Sq. yds.	Cost.	Sq. yds.	Cost.	
Bourbon	Waterbound macadam	6.5	46,724	$9,443.69				23,466	$2,148.09	$11,591.78
Cherokee	Gravel	30								5,077.82
Cowley	Waterbound macadam	25	201,600	1,539.00	Gravel	57,600	$400.00	86,400	804.00	2,743.00
Edwards	Sand clay	18						312	195.00	195.00
Geary	Bituminous macadam	.45	4,165							
Geary	Waterbound macadam	1.2	21,666	523.50						523.50
Geary	Portland cement concrete	2	18,775							
Harper	Sand clay	4		1,196.00						1,196.00
Johnson	Oiled earth	34	359,040	15,002.83				239,360	310.50	15,313.33
Sedgwick	Sand clay	30.5	332,080	14,932.50					2,334.55	17,267.05
Shawnee	Gravel	29.45								13,463.18
Shawnee	Waterbound macadam	.5								265.75
Shawnee	Bituminous concrete	1.1								40.00
Wyandotte	Waterbound macadam	48	450,576	24,785.00				21,000	3,707.00	28,492.00
Totals		220 7	1,434,626	$67,422.52		57,600	$400.00	370,538	$9,499.14	$96,168 41

TABLE No. 13.—ROAD ACCIDENT RECORD, 1916-1917.

Counties.	Date.	Name of road.	Location. Sec.	Location. Twp.	Location. Range.	Nature of accident.	Amount of damage.	Number people injured.	Number people killed.	Cause.
Atchison	Mar. 26		11	6	20	Ran off embakment with car		2	1	Drunken driver.
Dickinson	Dec. 17	Abilene to Herington Road	5	14	3	Death at R. R. crossing	$225.00		2	Old lady and son in buggy with side curtains up.
Gray	Summer	Santa Fe Trail	28	25	29	Collision, (auto)				Watching trains at R. R. cross'g.
Gray	Sept.	No. 96	21-22	25	30	Automobile struck by train				Carelessness.
Harvey	Sep. 9	Santa Fe Trail	25	23	3W	Car hit by train		2	3	Speeding.
Labette	Oct. 9, ——	King of Trails	3	34	21	Ford turned over		3		Fast driving.
Labette	Oct. 9, ——	King of Trails	33	34	21	Ford turned over		2		Fast turn.
Labette	Fall, 1916	Deming Road	10	33	21	Ford into river		4		Amateur driving.
Labette	Sept., 1917	Parsons, Strauss Road	18	31	21	Stutz turned over		3		Fast driving; intoxicated.
Lincoln	Jan. 13, ——	Ash Grove	11	10	6	Car ran off bridge		1	1	Racing and joy driving.
McPherson	Nov. 29, 1916	Township Road	1	19	1	Train hit auto.	900.00	2	1	C. R. I. & P. R. R. grade crossing.
McPherson	Aug. 23, ——	Township Road	30	19	3	Train hit auto	100.00		1	M. P. R. R. crossing.
Miami		Wellsville	9	17	23	Young man hit by Frisco train		1		Claim bell did not ring.
Miami		Jefferson Highway	3	17	23	Car overturned at Mo. P. cros 'g				R. R. crossing too narrow.
Montgomery		Coffeyville-Caney Road	6	35	16	Two automobiles collided		3	1	Cars racing in dust.
Montgomery		Independence-Cherryvale	30	32	17	Car in ditch at turn		2		Tried to make turn too fast.
Montgomery		Independence-Cherryvale	30	32	17	Car in ditch at turn		1		Tried to make turn too fast.
Montgomery		Coffeyville-Liberty	36	33	16	Car in ditch at turn		1		Cars racing.
Montgomery		Independence-Cherryvale	28	32	16	Car over bank				Broken steering gear.
Morris	April, ——	Old Trails Road	14	16	7	Automobile turned over		1	1	Tire blew up while speeding.
Osage		2 miles northwest of Bloomington				Auto wrecked turning corner			1	
Pottawatomie	Sep. 16, 1917	Golden Belt Road	5	10	11	U.P. train hit car at grade cross'g.	*	2	1	Steel truss bridge obstructs view from west.
Pottawatomie	Sept. ——	Golden Belt Road	3-34	9-10	10	2 cars collided	18.00	4		Speeding at cross roads.
Pottawatomie		Spring Creek				Car hit wagon	1,000.00	2		Passing on wrong side.
Rice		Sterling-Lyons	†			Broken wheel on Ford		7	1	Overloaded car speeding.
Rice		River Road	28	21	8	Collision of two cars		1		Cars met at cross roads; high speed.
Rice		Chase Road	33	19	9	Motorcycle		1		Speed and rough road.
Rice		Chase Road	36	19	9	Motorcycle and auto		1		Collided at corner when speeding.
Rice		Chase Road	36	19	9	Two autos collided		3		Hedge corners.
Rice		Frederick Road	11	18	9	Motorcycle and auto		1		Too much speed at corner.
Rice		Frederick Road	11	19	7	Motorcycle		1		Struck rock in road.
Rice		Frederick Road	15	19	7	Two automobiles		3		Too much speed at corner.
Sedgwick		North Lawrence Road	21	26	1E	Car overturned		1	1	Re kless driving.
Sedgwick		North Lawrence Road	33	25	1E	Car overturned			1	Bad turn; fast driving.
Sedgwick		West Maple Road	23	27	1W	Car overturned			1	Reckless driving.
Sumner		Meridian Trail Road	13-14	305	1W	Car hit by train; auto demolished		4	1	C. R. I. & P. R. R. crossing.
Sumner		Meridian Trail Road	13-14	305	1W	Car hit by train; auto demolished				C. R. I. & P. R. R. crossing.
Sumner		Meridian Trail Road	13-14	305	1W	Car hit by train; auto demolished				C. R. I. & P. R. R. crossing.
Totals							$2,243.00	59	18	

*Claim not settled. †Correction line.

TABLE No. 14.—ROAD ACCIDENT RECORD, 1917-1918.

Counties.	Date.	Name of road.	Location.			Nature of accident.	Amount of damage.	Number people injured.	Number people killed.	Cause.
			Sec.	Twp.	Range.					
Barton	Nov. 2, 1917	Hoisington Road	9	17	13	Two automobiles collided				Hedge obstructed view.
Barton	June, 1918	Village of Dundee	17	20	14	Crossing railroad track in front of engine		1	1	Carelessness.
Brown	Jan. 4, 1918	Township Road	34-35	4	18	Automobile collided with railroad train		1	1	Drove in front of train.
Brown	Jan. 10, 1918	Township Road	22-27	2	15	Automobile turned over		1	1	Without chains: slick road.
Brown	May, 1918	County Road	WL7	2	17	Automobile turned over		2		Bad place in road.
Brown	May 5, 1918	County Road	29-28	2	17	Automobile turned over		2		Fast driving and rough place in road.
Brown	May 10, 1918	County Road	29-32	2	16	Automobile turned over		4	1	Automobile ran over dog.
Butler	Aug., 1918	Leon Road	11-12	26	5	Automobile damaged				Struck rock at side of road.
Chautauqua	Aug., 1918	No. 3	14	35	10	Automobile hit by train		1		Dangerous crossing on A. T. & S. F. west of Elgin. Did not hear or see train. (Crossing to be eliminated.
Coffey			‡32	19	16	Two automobiles collided		2		Hedge fence obscured view.
Comanche	Feb. 26, 1918	County Road, No. 1	16	31	18	Automobile overturned		1	1	Reckless driving at night.
Comanche		County Road, No. 2		32	18	Collision with team			1	Speeding without lights.
Dickinson	Apr., 1918	Golden Belt (Central)	16	13	2	Automobile into ditch to avoid collision	$300.00	1		Meeting at road intersection.
Gray	Aug. 12, 1918	Santa Fe Trail	11	26	28	Automobile smashed by train	900.00		2	Motor stalled on track. Did not see train.
Gray	Sep. 23, 1918	Santa Fe Trail	28	25	29	Automobile smashed by train	825.00			Did not see train.
Johnson	Nov. 12, 1917	S. F. Trail at Pleasant View	20	13	24	Train hit wagon			1	Foggy; rainy; could not see train.
Johnson		S. F. Trail at Pleasant View	20	13	24	Auto. left on railroad was demolished.				Two drunk men left the automobile on crossing.
Labette						A few minor accidents				Fast driving.
Lincoln	Feb. 10, 1918	Sylvan	8	10	12	Horse out loose from buggy and was killed; children unharmed.	100.00			Unable to see train.
Lincoln	Oct. 6, 1918	Sylvan	2	12	8	Collision	150.00			Joy driving.
Miami		Wellsville	9	17	23	Automobile hit by Frisco train		3	1	Crossing bell not ringing.
Miami		Drexel	7-12	18	23-24	Automobile overturned		5		Skidding.
Miami		Jefferson Highway	30	17	23	Automobile struck by truck		4		Running without lights.
Mitchell		County Roads				Several accidents in which cars collided or overturned			2	Carelessness.
Morris	Oct., 1918	Council Grove-Cottonwood	21	17	9	Automobile turned over	200.00	3	1	Careless driving.
Morris		C. G. Dunlap Road	11	17	9	Automobile turned over	100.00	2		
Nemaha		Township Road	7	4	13	Carriage struck by K. C. N. W. R. R. train at grade crossing.		2	1	Family in closed carriage; did not see or hear train.

Neosho	July 4, 1918		16	28	20E	Railroad crossing	100.00	4		Engineer failed to whistle; occupants failed to heed crossing sign.
Neosho	July 31, 1918	Altoona	7	29	17	Automobile overturned	200.00	1	3	High speed on earth road.
Osborne	Sep., 1918	Township Road	33	9	14	Automobile backed off a fill and overturned		2	1	Engine stopped on hill.
Osborne	Aug., 1918	Township Road		9	12	Collision		1		Running without lights.
Pawnee	July, 1918	Burdett Road	28	215	18W	Automobile left grade	75.00			Careless driving.
Pawnee	Aug. 19, 1918	Sanford Road	32–33	21	18W	Truck overturned		5		Careless driving.
Phillips	Oct. 30, 1918	Rock Island Highway	8–9	3	19	Train struck car	500.00	1		Grade crossing.
Rice	Nov. 1917	Bushton Road	2–11	18	9	Collision		1		Corner accident; open corner.
Rice	May, 1918	Lyons-Sterling Road	7–8	20	9	Automobile overturned		4	2	Automobile racing; lost control of car.
Rice	Jan., 1918	Mitchell Road		19	7	Collision		4		Corner accident; corner clear.
Rice	Sep., 1918	Alden Road		20	9	Automobile overturned		2	1	Turned corner at high speed.
Sedgwick		S. Lawrence Road				Automobile			1	Careless driving.
Sedgwick		S. Lawrence Road				Automobile			1	Careless driving.
Sedgwick		13th Street Road				Automobile			1	Careless driving.
Sedgwick		Senica Road				Automobile			1	Careless driving.
Sumner	Dec., 1917	Zyba Road	13–14	305	1W	Automobile hit by train; car demolished.				C. R. I. & P. R. R. angling railroad crossing.
Sumner	May, 1918	Zyba Road	13–14	305	1W	Automobile hit by train; car demolished.		3	1	C. R. I. & P. R. R. angling railroad crossing.
Sumner	Aug., 1918	Zyba Road	12–13	305	1W	Automobile hit by train; car demolished.		2	1	C. R. I. & P. R. R. angling railroad crossing.
Sumner	Sep., 1918	Township Road	7–8	315	1E	Automobile hit by train; car demolished.		1	1	Mo. P. R. R. crossing; careless driving.
Sumner	May, 1918	Anson Road	15–16	315	2W	Motorcycle ran into ditch		1	1	Lost control of machine.
Wyandotte		Kaw Valley Road	15	11	24	R. I. train struck moving van		2		Must have been asleep; traveling from Iowa.
Totals							$3,450.00	69	29	

‡N. W. Corner.

TABLE No. 15.—BRIDGE FAILURES DURING 1917.

Counties.	Location.	Date.	Type of structures.	Detailed statement of failures of structures.	Amount of damage paid.
Anderson	Ozark Township		Culvert	Horse went through culvert, breaking leg	$100.00
Anderson	Reeder Township		Culvert	Horse stepped through broken plank in wooden culvert and injured leg	
Brown	Sec. 26, T. 1, R. 16		Pile bridge	Engine went through 16-ft. pile bridge on south line of section; no one hurt.	
Brown	Mission Township		Bridge	Horse stepped through hole in bridge	51.00
Brown	Sec. 3, T. 3, R. 17	June, 1917	Concrete bridge	County bridge on township road; 8-ft. concrete arch; 14-ft. roadway; water cut under foundation during flood; county moved 30-ft steel bridge to this location	
Brown	Sec. 7, T. 3, R. 17		Corrugated iron pipe culvert	Corrugated iron pipe culvert, 4 in. in diameter, rebuilt with 6x7 ft. concrete box culvert	
Butler	Plum Grove Township		Culvert	One culvert washed out	
Butler	Plum Grove Township		Culvert	Culvert mashed in by a truck	
Butler	Sec. 10-15, T. 25, R. 5		Stone arch bridge	34-ft. span bridge; keystones dropped out; caused by becoming uncovered under heavy traffic; improperly cut stones flattened at haunches; condemned and blown down with dynamite by county commissioners and county engineer; replaced by 30-ft. T girder concrete bridge	
Cherokee	Salmanca Township		Culvert	Road overseer's horse fell through or off plank culvert that had been condemned while on inspection of culvert. He thoughtlessly or carelessly drove on culvert	
Cherokee	Ryan Bridge	1916	150-ft steel bridge	Ryan Bridge over Spring River taken out by tornado in 1916; rebuilt in 1917.	
Coffey	Pottawatomie		Culvert	Horse valued at $150.00 got leg broken by stepping through hole in culvert.	
Cowley			Concrete slab bridge	Bridge on sand foundation washed out by 10-inch rain or waterspout; the approach was out and one abutment undermined causing total collapse	
Decatur	Sec. 28-29, T. 1, R. 26		Wall	Wall washed out before the fill was put in	
Decatur	Sappa Township		Walls	Two cement walls washed out	
Dickinson	Culvert No. 4		Concrete slab culvert	4-ft. span culvert built by a township trustee with only a 6-inch slab and no reinforcement or crushed rock was crushed through by a 10-ton tractor in two places about 18 inches in diameter. The holes were covered with brush by the driver; county engineer hit one of the holes; damaged car to the amount of $60.00	
Dickinson	Bridge No. .013			Stone abutment 10 feet high fell and was replaced by concrete	
Dickinson	Bridge No. 39		Culvert	Steel bent set on old boiler tubes; was incased in concrete	
Dickinson	Bridge No. 47			Condemned for some time and completely overhauled; wingwalls had to be tied together	
Finney	Bridge at Holcomb		Pile bridge	96 feet washed out replaced with 3 concrete piles to each bent. Two complete bents built with concrete cap and 32-ft. span, using 6 12-inch T beams and 2 12-inch channel for each span	
Geary	South Milford Road		Culvert	$25.00 paid for skinning up mule which fell through culvert	25.00
Harper	Chicaskia Township		Bridges	Three small bridges in north part of township which are badly decayed need new floors	
Harper	Chicaskia Township			New floor needed on county bridge between Sec. 31-32; several holes rotted through	

Harvey	Emma Township			One broken by threshing machine; one broke down from natural wear	
Jackson	Sec. 30-31, T. 7, R. 16E		Wooden bridge	Steam engine went through 28-ft. wooden bridge	
Jackson	Walnut Township		Bridge	Bridge between Shuck and Callahan was too small to carry the water and the grade washed away	
Kiowa	Sec. 15-16, T. 28, R. 19		Wooden bridge	Washout north of Joy	
Labette	Oswego Township		Culverts	Several tile and rock culverts washed out	
Labette	Howard Township		Culvert	Threshing engine broke through culvert at Trenton Church	
Labette	Liberty Township			N. E. wingwall of bridge across Labette Creek between Sec. 9-16 caved in	
Miami	Sec. 22-27, T. 15, R. 22		Steel span bridge	Steel span blown off abutment by cyclone; cost of replacing about $800.00	
Montgomery			Culverts	Three small concrete structures failed; traction engines cause of failure; Lack of reinforcement; one culvert had old pipe in it	
Morris	Sec. 26, T. 17, R. 6		90-ft. steel bridge	Bridge across Diamond Creek washed away by extreme flood; was replaced and abutments raised 2 feet in elevation	
Morris	Rock Creek Bridge		75-ft. steel bridge	Bridge into creek on account of large tree blowing down on it	
Morris	Sec. 22, T. 14, R. 8		Culvert	Traction engine through weak wooden culvert; one person injured and one killed	
Republic	Northwest of Sheridan		Wooden bridge	Old wooden bridge collapsed under weight of traction engine	$45.00
Rice	East of Saxman		Wooden bridge	Small wooden bridge crushed by engine; replaced by concrete bridge	
Rice	Bridge on Cow Creek		Wood pile bridge	Wood pile bridge washed out; rebuilt	
Rush	Bridge on Walnut Creek		Bridge	Horse stepped in hole in plank floor; in trying to hold four horses W. A. Renner was thrown from wagon, systaining broken leg	500.00
Rush			26-ft I beam span bridge	6-inch I beams, 28 feet long, 2 inches on centers, were used to support a 12-inch reinforced slab floor; no falsework was used to support the span; before the concrete set the beams buckled and the span collapsed	
Sumner			Concrete arch culverts	Three 3-ft. concrete arches undermined and broke in	
Sumner			Steel bridge	Stringers broke and let one span floor in	
Total					$721.00

TABLE No. 16.—BRIDGE FAILURES DURING 1918.

Counties.	Location.	Date.	Type of structures.	Detailed statement of failures of structures.	Amount of damage paid.
Anderson	4th Ave. Bridge, Cedar Crest		Pony truss bridge	Upper 10 feet of 25-ft. pier was an exterior wall filled in with spall rock, dirt, etc. Cap rock crushed, causing walls to split at each end of pier below steel shoes	
Anderson			Dry masonry abutment on small culverts	Culverts were constructed with wood strigers and floor. Settling, earth pressure and impact	
Anderson			Concrete pipe culverts	Settling at each end of pipe culvert due to insufficient depth of foundations for headwalls; cracking and breaking under traffic	
Atchison	Sec. 22, T. 7, R. 21	July, 1918	18-ft. wood stringer bridge	C. C. Anderson Transfer Co., hauling 4½-ton truck load of household goods broke through bridge	$63.40
Barton	Wheatland Township		Concrete arch culverts	Two old culverts broke down and have been rebuilt	
Barton	Mud Creek Bridge, Mile 33			Bridge across Mud Creek giving out	
Barton	Great Bend Township			Crown of culvert No. 94 broken in and condemned	
Barton	Great Bend Township			Crown of culvert No. 194 broken; private road	
Barton	Great Bend Township			Crown of culvert No. 91 broken; repaired with section of boiler plate; seems to be in fair condition	
Barton			Concrete arch culverts	Failure of 6 concrete arches due to poor design and lack of earth cushion on crown	
Brown	Lee Bridge			Broken down by threshing machine	
Butler	El Dorado Township		Corrugated iron pipe culvert	Corrugated iron casings practically all broken in	
Butler	Plum Grove Township			Bridge washed out and fell in creek with automobile; two men in car	400.00
Butler	S. 1, T. 27, R. 6-56, T. 27, R. 7		Arch steel bridge	Truck carrying 10 or 11 tons broke down bridge over Little Walnut Creek. Failure of tie rods	
Chase	Strong Township		Culvert	Failed because of insufficient reinforcing and improper foundations	
Cherokee	Mineral Township		Concrete Arches	Three concrete arches broken by engines	
Clark	Bluff Cr., Lexington Twp		Three-span girder	One pier has settled about 20 inches; concrete work excellent, but piling foundations are poor	
Clark	Lexington Township		Concrete slab	Slab between Sec. 25-26, T. 31, R. 21 W. broken up and destroyed by flood	
Clark	Center Township		Concrete culvert	Culvert crushed by tractor	
Clark	Center Township		8-ft. concrete arch culvert	Culvert was undermined	
Clark	Sitka Township		6-ft. culvert	Undermined and destroyed	
Clark	Edwards Township		Culvert	Culvert on Road No. 6 failed during flood	
Coffey	Sec. 2½, T. 21, R. 16		Bridge	Horse broke through wooden floor of bridge	15.00
Coffey			Bridge	Cow broke leg by stepping through floor of bridge	40.00
Coffey	Leroy Township		Culvert	Failure of culvert 27555 due to lack of reinforcement in construction	
Coffey	Ottumwa Township		Culvert	Culvert I 840; engine fell through; no reinforcement	
Comanche	Coldwater Township	Mar. 21, 1918		Ford automobile ran into washout; automobile damaged and man bruised	100.70
Cowley	Sec. 18, T. 34, R. 8	Sep., 1918	Temporary crossing	Damaged axle to automobile; fast driving at temporary crossing; bridge out	30.00
Cowley	Sec. 5, Mile 5		Concrete T girder bridge	A 10-inch rain on precipitous slopes cut back of west abutment and undermined it, letting structure down; west foundation should have been down to bed rock; concrete in structure good	

Cowley	Sec. 26, T. 33, R. 3		Concrete culvert, 6-ft. arch	Washed out in heavy rain; faulty foundation; span too small; concrete work medium	
Crawford	Clear Creek Bridge		Bridge	One panel of concrete floor on Clear Creek Bridge failed because bridge was opened to travel too soon; poor chats used; old reinforcement was cleaned and floor repaired	59.70
Crawford	Washington Township		Concrete culverts	Five concrete culvert tops crushed by threshing outfits	
Crawford	Washington Township		Stove culverts	Eight old stone culvert foundations undermined; repaired with concrete	
Crawford	Sec. 34 T, 30 R. 24		8-foot masonry culvert	Arch crushed by engine	
Decatur	Bridge No. 5, Solomon River	June 1, 1918		West abutment washed out; the cement floor dropped into river on the west end; quicksand foundation. The northwest corner was cracked shortly after the construction of the bridge in 1917	
Decatur	O-K-N Road	Aug. 11, 1918	Wall 8x140 feet	Washed out by a cloud burst; drainage, 40 acres; replaced	
Decatur	Sappa Creek		Bridge	North abutment undermined, cracked, sank, wings down and steel kinked and bent	
Decatur	Oberlin Township		Cement Wall	Cement wall washed out and rebuilt	
Decatur	Olive Township		Bridge	Bridge washed out and auto wrecked	50.00
Decatur	Roosevelt Township		Culvert C 28	On account of a washout an automobile ran into culvert washout and broke motor wheels	1,500.00
Dickinson	Grant Township		Concrete slab culverts	In 1913 Grant trustee built 5 culverts without plans or specifications, 4 to 6-foot spans; slabs, 5 to 6 inches thick made from sand and cement of very lean mix with one layer of hog wire through middle plane; three of these culverts have been crushed by 10-ton tractors. Culverts were a total loss	
Elk			Stone top culvert	Old stone top culvert with 2-foot span failed	
Ellsworth	T. 16, R. 8	June. 1918	Concrete slab culvert	10 feet, 4 inches clear span culvert failed when 10-ton tractor crossed for the ninth time; faulty design and poor construction: contract let without either plans or specifications; slab 4½ inches thick, reinforcing bars 3-8 inch, 12 inches C to C	250.00
Finney	Bridge No. 303		Low water bridge	Plain concrete abutments poorly constructed; one wingwall washed out and one abutment undermined; not enough cement used in construction; poorly mixed; repaired and may withstand next flood	
Finney	Bridge No. 302		Pony truss bridge	Pony truss on pile abutment and bents; each end of bridge 18 inches lower than pony truss and 6 inches lower than road approaches. Crest of flood flowing over this point created eddies which washed out part of abutment and the dirt road approach tor 10 feet from end of bridge	
Greenwood	Fall River Township		Concrete culvert	6 feet high, 4 feet wide; used for cattle subway; wire reinforcing; broken by steam tractor	
Greenwood	Fall River Township		Concrete culvert	3x3-ft. culvert built of plaint concrete; broken by steam tractor	
Greenwood	Janesville Township		Wood top culverts	Several wood top culverts broken by trucks	
Greenwood	Spring Creek Township		Bridge and Culvert	One bridge and one culvert broken by Star drilling rig	
Kingman	Sec. 9, T. 30, R. 8	Aug. 15, 1918	Bridge	Horse broke front leg; c used by broken plnk on bridge	125.00
Leavenworth	South of C. Dohrn's Farm		Bridge	Bridge three-fourths of mile south of Chas. Dohrn's farm badly damaged by truck	
Marshall	Richland Township, Mile 13		Bridge	Rev. J. W. Tweed ran automobile into bridge washout	50.00
Marshall			Wood pile bridges	4 structures with worn out floors; piling rotted	
Marshall			Wood box culvert	Worn out floors; generally rotted	
Mitchell				Horse injured by breaking through decayed floor	12.50
Mitchell				Several bridges washed out or injured by floods because of insufficient waterway	

TABLE No. 16.—CONCLUDED.

Counties.	Location.	Date.	Type of structures.	Detailed statement of failures of structures.	Amount of damage paid.
Mitchell			Concrete slab culvert	8-foot culvert broken through; poor concrete and reinforcing; culvert built in 1911	
Montgomery	Bridge 201		33-ft. steel span bridge	Bridge failed under steam traction engine and separator; engine went onto bridge without planking; engineer heard bolt-heads fly as the bridge gave way. Bridge had 7-inch steel I-beams as stringers and 3-inch oak plank floor in good condition; bridge had heavy sand-stone masonry abutments carried down to rock foundations	
Morris	Council Grove Township		Culvert	Steam traction engine went through culvert on White City Road	
Osborne			Bridges	Two bridges went down because of insufficient foundations	
Pawnee	Bridge at Rozel	June, 1918	Concrete bridge	Wings on bridge destroyed by flood; faulty design and construction	
Pawnee	Bridge at Sanford	June, 1918	Concrete bridge	Wings on bridge destroyed by flood; faulty design and construction	
Pawnee			Wooden bridges	Three old bridges wrecked by flood, nothing but piling left standing; poor construction and age of bridges	
Pawnee			Reinforced box culvert	8-foot culvert overturned and came to pieces; poor construction	
Pawnee			Concrete culvert	Top gave way on an 8-foot culvert; poor concrete; faulty design	
Pawnee			Concrete headwalls on metal pipe culverts.	The endwalls on four 4-foot metal pipe culverts gave way; failure due to poor construction	
Pawnee		June, 1918	Wooden bridge	An old 12-foot stone abutment with wood top bridge was washed entirely away; bridge worn out	
Pawnee			Metal culverts	Small metal culverts mashed up and washed full of dirt. No head walls. Culverts undersized	
Republic	B 15231 E	May 20, 1918		A heavy rain washed out the pile abutment of the south approach	
Republic	B 13271 S	Aug. 11, 1918	Wood truss bridge	Flood carried wood truss bridge on pile bents about 15 feet down stream in level position. Will be used until concrete bridge is built	
Republic	B 2341 E	Aug. 11. 1918	Wood truss bridge	Flood rendered bridge impassable; bridge is not necessary; may not be replaced	
Republic	Bridge No. 4, Mile 2		Bridge	Threshing engine through bridge. Bridge repaired by parties running engine.	
Rice	Atlanta Township		Concrete arch culvert	One-half side of culvert caved in; no reinforcements; poor material and work	
Sedgwick			240-ft. pile trestle bridge	Washed out by flood	
Sedgwick			180-ft. trestle bridge	Washed out by flood	
Sheridan			Wooden bridge	Wooden bridge on concrete abutments; high water caused the abutments to turn over; they were not on solid rock	
Sumner		Oct., 1918	Pile bridge	A loaded truck broke through an old pile bridge which had been condemned and posted	
Sumner			Concrete arch culverts	Seven culverts failed. Not designed by engineer; faulty construction	
Wilson	Newark Township		Culvert	Cow broke leg; caused by broken board in culvert	$10.00
Wilson	Center Township		Bridge	Heavy drill rig outfits passed over it; poor reinforcing; slab broken	
Wilson	Center Township		Bridge	Traffic began before cement had hardened properly; poor reinforcing material	
Total					$2,706.30

TABLE No. 17.—BRIDGE AND CULVERT ACCIDENT RECORD, 1917.

Counties.	Location.	Date.	Description of accident.	Cause.	Number people injured.	Number people killed.	Amount of claims paid.
Brown	Sec. 17, T. 4, R. 18		Automobile head on collision	Narrow bridge, careless driver			
Coffey	Pottawatomie Township		Two-year old steer valued at $60 pushed off bridge				
Gray			Automobile turned over; ran off end of lateral culvert				
Jewell	Montana Township		One accident on culvert but no claim for damage				
Kearny	Bridge No. 27		Automobile missed the bridge and fell 8 feet	Fast driving	1		
Kearny	Bridge No. 6		Automobile hit bridge; several women badly hurt	Fast driving			
Labette	Bet. Oswego and Labette City		Traveling salesman ran car into head wall of culvert which had 20-foot clear roadway				
Labette	Neosho railroad bridge, west of Strauss		Ford automobile ran into guard rail at west end of bridge				
Miami	Hobart Bridge		Injury to horse				$2.00
Miami	Sec. 34, Twp. 15, R. 23		Automobile overturned at culvert		3		
Miami	Sec. 7, T. 17, R. 25		Automobile overturned at culvert		2		
Montgomery	Sec. 27, T. 32, R. 16		Independence-Cherryvale Road; automobile ran into concrete culvert	Trying to pass another car at night; dust bad	2		
Montgomery	Sec. 30, T. 32, R. 17		Independence-Cherryvale Road; automobile ran into concrete culvert	68 miles per hour	2		3,200.00
Montgomery	Sec. 29, T. 32, R. 16		Independence-Cherryvale Road; automobile ran into concrete culvert	Automobiles racing	1		
Montgomery	Sec. 9, T. 32, R. 17		Cherryvale-Chanute; automobile ran into concrete culvert	Drunken driver in stolen car			
Osborne	Ross Township		Automobile ran into open culvert; during construction				
Osborne	Lawrence Township		Automobile ran into open culvert during construction. $25.00 damage to car				
Rice	*Bridge east of Little River		Automobile ran off end of bridge; car demolished; occupants slightly injured	Lights of another automobile			
Rice	*Bridge east of Little River		Automobile hit buggy; killed horse	Bridge too narrow			
Rice	*Bridge east of Little River		Automobile ran backwards downhill off bridge; car demolished				
Rice	South of Lyons		Automobile ran off end of culvert	Poor driver	3		
Rice	Bridge on Santa Fe Trail		Automobile ran off bridge; automobile burned	Bright lights			
Rice	Near Saxman		Automobile ran off bridge	Trying to pass another car; too much speed			
Sedgwick	E. Kellog, Sec. 22, T. 27, R. 1 E.		Automobile ran off bridge	Whisky	3		
Total					17		$3,202.00

*This is to be changed to new location.

TABLE No. 18.—BRIDGE AND CULVERT ACCIDENT RECORD, 1918.

Counties.	Location.	Date.	Description of accident.	Cause.	Number people injured.	Number people killed.	Amount of claims paid.
Brown	Padonia Township		A woman fell off culvert				$225.00
Coffey			Automobile upset off end of culvert	Meeting another automobile			
Crawford	Sec. 3, T. 31, R. 25	Aug., 1918	14-foot clear roadway; automobile straddled 4-inch guard rail				*
Decatur	Bridge No. 20, Sappa Cr		Horse dropped uninjured into creek; some harness and a casting on header broken; this caused delay.	One horse of header team crowded off bridge; no hand rail on bridge			25.00
Dickinson	Sec. 24, T. 13, R. 1	June 10, 1918	Automobile rear end collision on bridge on Golden Belt Road	Crowding to pass from rear	3		300.00
Dickinson	Sec. 18, T. 12, R. 4	Oct. 1, 1918	Automobile into ravine off culvert on Chapman and North Road	Careless driving at night	2		200.00
Dickinson	Sec. 8, T. 13, R. 2	Apr. 6, 1918	Automobile missed 12-foot roadway with right wheels. When driver reached other end of 64-foot bridge did not release pressure on steering device; shot to left over 12-foot embankment; Cementery Road	Careless driving on bridge with 12-foot parallel floor	2		1,000.00
Finney			Drove into irrigation ditch; lack of handrail	Driving after dark without lights			
Geary	Sec. 25, T. 12, R. 5	Summer, 1918	Automobile ran off end of small pipe culvert on county road	Speeding		1	
Greenwood	Sec. 9, T. 28, R. 13		Automobile ran off end of bridge	Fast driving in new car	1	1	
Greenwood	Sec. 17, T. 27, R. 11		Automobile upset at end of small culvert	Driving downhill; no handrails			40.00
Jewell		Feb., 1918	When Mr. H. E. Warren's automobile struck bridge, he was thrown through windshield, an artery was cut, and he almost bled to death; the automobile was smashed	Driver confused as to location; speeded and ran car into batter post of steel bridge		1	
Marshall			Steering gear of automobile broken; car off bridge	Broken steering gear		1	
McPherson	Sec. 4, T. 20, R. 3	Dec. 22, 1917	Ran off culvert	Carelessness			43.75
Miami			Two automobiles ran together on narrow 12-foot bridge; automobiles badly damaged				
Miami			John Gerke ran off culvert; arm broken and automobile damaged	Handrail gave way			†
Miami			Several cars turned over at culverts	Low head walls			
Montgomery	Fawn Creek Township		During the construction of a bridge, a temporary roadway was provided around one end of bridge. This roadway was steep as it left the road grade; buggy upset and the horse ran away dragging the woman for some distance	Steep temporary roadway; light weight buggy	1		250.00

Morris	Rock Creek Bridge		Automobile went over south embankment on east side of bridge on County Road	Boys driving car; accident due to carelessness			
Nemaha			Horse fell off bridge where there was no handrail	Lack of handrail on bridge			50.00
Republic	Lincoln Township		John Williams automobile ran into ditch for Culvert No. 2, Mile 24, bending front axle, steering gear, radiator and lamp				17.00
Sumner	Sec. 1, T. 35, R. 2 W	Oct., 1918	Automobile missed Drury Bridge	Young boy driving, lost control	2		
Thomas	Sec. 32-5, T. 8, R. 33	Mar. 27, 1918	Missed bridge; automobile turned over and pinned the man under his automobile; he was dead when found. Widow has asked settlement of $10,000.00	Lights did not work well		1	‡
Harper	Lake Township		Car ran off culvert				30.00
Lincoln	Sec. 2, T. 12, R. 8	June 6, 1918	Two cars trying to cross bridge on Sylvan Road at once				100.00
Totals					11	5	$2,280.75

*Asked $82.00. †Claim made but not paid. ‡Asked $10,000.00.

TABLE No. 19.—COST OF ENGINEERING.

Counties.	1917.			1918.			Average cost of automobile per mile.
	Total salary paid county engineer.	Total salary paid assistants and helpers.	Total expenses of county engineer, assistants and helpers.	Total salary paid county engineer.	Total salary paid assistants and helpers	Total expenses of county engineer, assistants and helpers.	
Allen							
Anderson	$406 66		$98.75	$1,281.63		$708.98	$0.10
Atchison	1,670.00	$62.50	1,501.95	1,800.00	$126.89	2,144.57	
Barber							
Barton				1,399.92	4,884.73	3,627.85	
Bourbon				1,800.00	1,486.25	965 86	.74
Brown	951.99		300.38	1,600.00	250.00	845.46	.05
Butler	1,341.87	389.37	619.80	2,000.00	728.07	633.78	.10
Chase				1,200 00	174.60	31.45	
Chautauqua				‡675.00		284.96	
Cherokee	853.74	619.90	197.21	2,000.00	802.65	323.72	
Chevenne							
Clark				†551.00	100.50	145.34	.05
Clay							
Cloud							
Coffey	**233.33		100.00	1,400.00	90.00	600.00	
Comanche				†551.00		141.33	.05
Cowley				2,000.00	490.00	730.00	
Crawford				1,792.95	132.00	1,361.61	
Decatur				1,200.00		777.40	.10
Dickinson	1,000.00	115.00	262.00	1,800.00	52.38	346 86	
Doniphan				1,100.00	25.00	205.00	
Douglas							
Edwards				800.00		185.00	
Elk				‡675.00		190.00	.05
Ellis							
Ellsworth				1,300.00	266.82	312.76	.075
Finney				*726.00	508.00	1,102.00	.10
Ford							
Franklin							
Geary				809.09	254.80	568.93	
Gove							
Graham							
Grant							
Gray				763.50		541.60	.10
Greeley	*50.00		46 48	*300.00		183.19	.07
Greenwood							
Hamilton				*600.00		165.00	.03
Harper				1,300.00	282.65	34.68	.35
Harvey	633.00						.20
Haskell				*374.00	322.00	361.54	.07
Hodgeman	465.05	54.25	260.75				
Jackson	700.00			1,400.00		444.25	.10
Jefferson				1,400 00		40.75	
Jewell	291.65	335.25	43.60	1,400.00		208.80	
Johnson				1,400 00	750.00	453.15	.10
Kearny	*600.00		90.00	*600.00		160 00	.041
Kingman				1,300.00	150.00	162.00	
Kiowa				1,100.00		397 29	
Labette	913.85		619.28	2,000.00	932.81	1,359.66	.028
Lane							
Leavenworth				2,000.00	1,275.00	216.78	.071
Lincoln	541.65	1.50	12.67	1,300.00	5.50	71.01	.053
Linn							
Logan	175.00		30.00	313.28		191.52	.10

TABLE No. 19.—CONCLUDED.

Counties.	1917.			1918.			Average cost of automobile per mile.
	Total salary paid county engineer.	Total salary paid assistants and helpers.	Total expenses of county engineer, assistants and helpers.	Total salary paid county engineer.	Total salary paid assistants and helpers	Total expenses of county engineer, assistants and helpers.	
Lyon							
Marion	‡666 65	‡7.00	‡991.64	1,600.00	‡79.20	‡605.72	$0.037
Marshall	1,355.99		136.50	1,600.00	739.75	674.16	
McPherson	666.67			1,600.00	81.75	192.84	
Meade							
Miami	177.00		30.25	1,400.00		790.00	.125
Mitchell	324.99			1,300.00		431.65	
Montgomery	1,589.96	802.87	254.44	2,000.00	993.18	360.00	
Morris	929.75		54.75				
Morton							
Nemaha	951.69		372.67	1,400.00		568.04	.05
Neosho				1,052.38	60.00	345 68	
Ness				1,200.00		123.49	
Norton							
Osage							
Osborne				1,300.00		286.91	.10
Ottawa				866 64		837.17	
Pawnee				1,200.00		360.00	
Phillips	794.00	90.00	347.54	1,300.00	73.45	701.85	.10
Pottawatomie	291.65	20.00	123.20	1,400.00	5.60	974.42	.072
Pratt							
Rawlins				1,033.00		342.45	.085
Reno	1,600.00	1,181.79	473.03	2,000.00	1,829.10	905.84	
Republic	700.00		48.75	1,400.02	33.75	5.88	.10
Rice	774.99		480.32	1,200.00		476.30	.07
Riley							
Rooks				974.99		360.65	
Rush	776.00		145.92	1,200 00		109.29	.03
Russell				1,300.00		515.00	
Saline				1,600 00		483.71	
Scott	*368.75		43.60	*825.00		163.21	.07
Sedgwick	1,600.00	881.49	806.35	2,000.00	2,220.71	799.60	
Seward							
Shawnee				2,000.00	1,467 46	912.48	
Sheridan	*300.00	426.85	126.85	*859.33	55.88	92.95	.10
Sherman	1,050.00						
Smith							
Stafford				1,300.00		690.50	.05
Stanton							
Stevens				1,046.67			
Sumner	610.00	147.50	206.05	1,800.00	104 00	640.25	.05
Thomas				*407.36	20.00	171.69	.10
Trego				1,200.00		402.20	.10
Wabaunsee							
Wallace							
Washington	1,056.00	16 80	7.67	1,400.00	285.00	488.44	
Wichita	*39.58	43.76	4.18	*474.96		212.95	.07
Wilson	1,600.00	336.25	297.55	1,600.00	1,095.82	141.47	
Woodson							
Wyandotte				2,000 00	4,500.00		

*Partial salary district engineer. †Half salary, 10 months. ‡Half salary, 9 months. **Salary, 2 months.

GENERAL INDEX.